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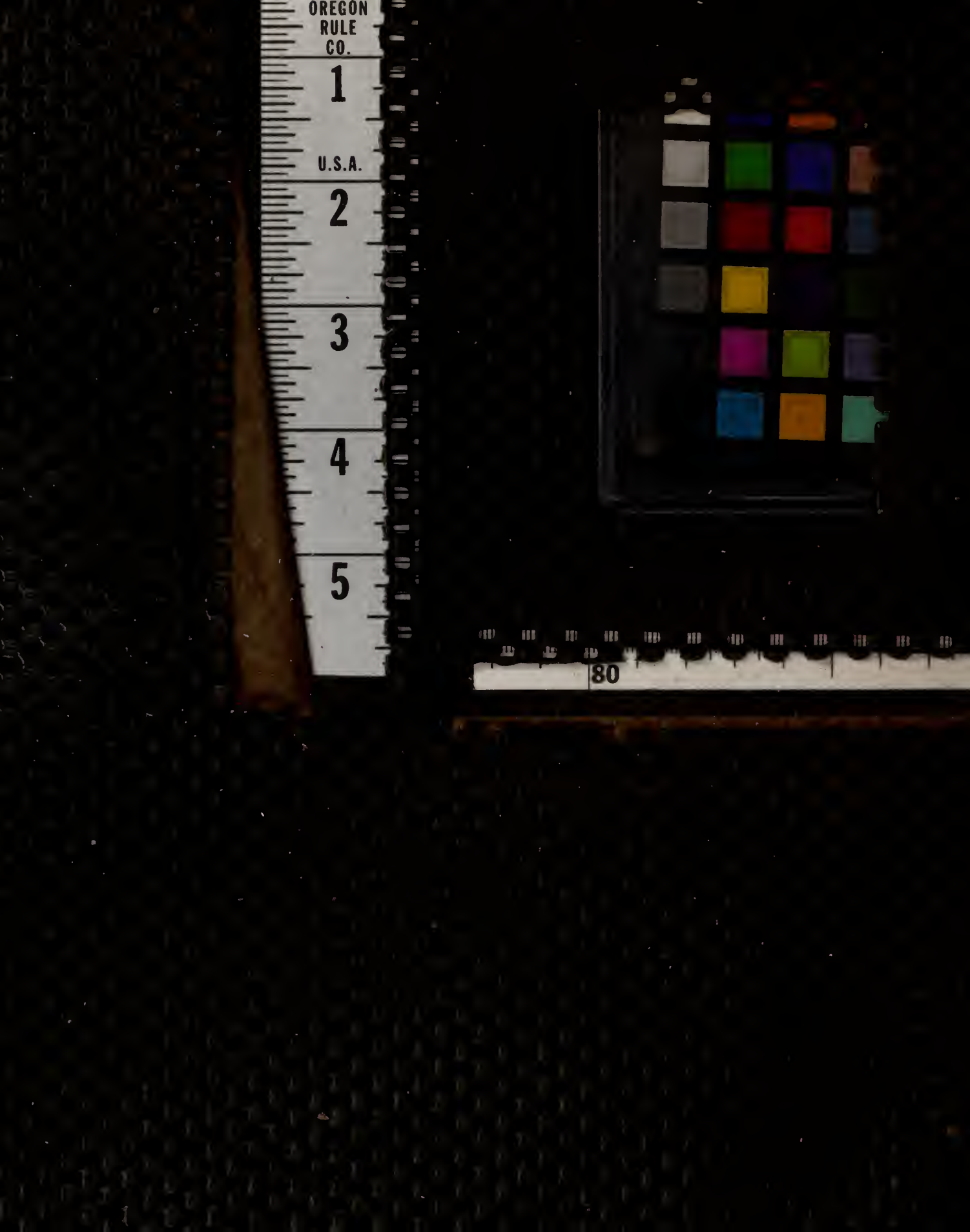
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The TECHNOCRAT

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THIS ISSUE:

WHAT IS WRONG WITH SCARCITY?

We Must Save— For What?

Widespread Unemployment or Abundance

A New Concept Is Needed

Technocracy Is For Women — Too

Critical Comments

Science in the News

Research Bulletin

NEWS MAGAZINE

Whole No. 167

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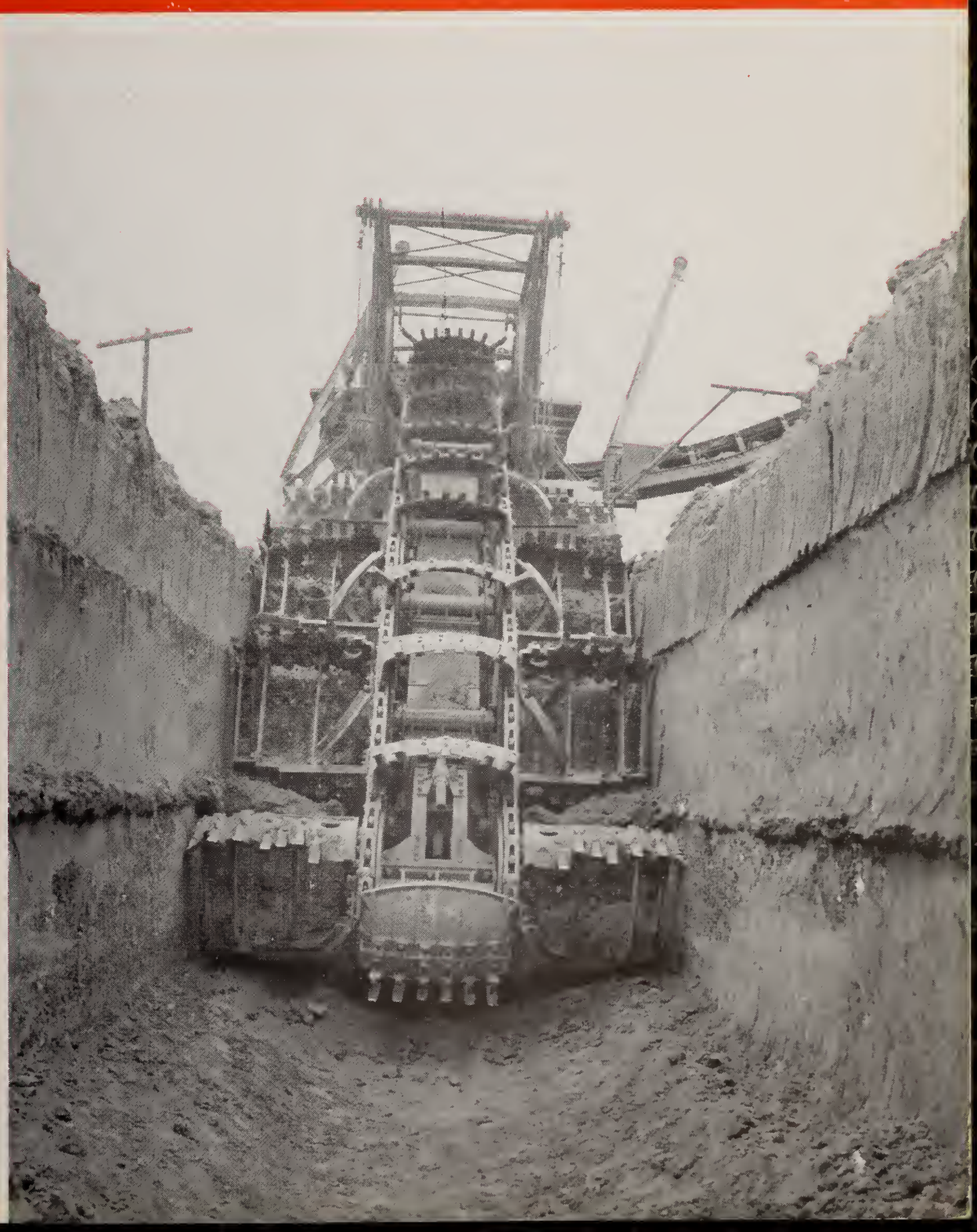

The TECHNOCRAT

SEPTEMBER, 1953

Editorial

LET'S HAVE A NEWSADE

WHAT this Continent needs is a Newsade instead of a Crusade. A Newsade which will provide the necessary enthusiasm and zeal to wake the American people out of their lethargy. A positive policy for the reconstruction of the North American Continent instead of a negative policy dedicated to the destruction of America's youth and resources.

Crusades, whether for religious motives or for loot, have resulted in mass suffering, plundering, and death. They have not solved anything of importance.

Our present leadership wants the American people to rally around another Crusade, that of stopping "communistic imperialism" which in reality had its origination in the Western Civilization. They would have the American people believe that this crusade is not only necessary, but inevitable, if we are to survive as a nation.

We have fought two world wars to make the world safe for democracy, but they tell us that this sacrifice has not been enough, we must do it just one more time. Where have we heard that kind of propaganda before?

At no time has the political, financial, and ecclesiastical leadership of this country told the American people the real purpose of such a crusade, that is, to preserve the status quo of the Price System with its scarcity values. A crusade to make the world safe for American business. It is a device to divert the attention of the American people away from the real social and technological issues which are now confronting the North American Continent.

Technocracy has stated on numerous occasions that no nation need fear communism as long as it had a superior ideology. A crusade would be an admission that the present method of social operation is inferior to communism. Technocracy presents to this Continent a superior ideology capable of working in accord with our technological society of today and showing the way to the rest of the world by example instead of by force and dollar diplomacy. Technocracy stands *for* something rather than just *against* something.

Ever since the revolutionary birth of this nation there has not been any fundamental change in its political and economic structure. In this time the nation has advanced from an agrarian society of scarcity into a technological society of abundance. The scientific progress of the nation has presented to the American people a new situation which requires a new technique entirely different than our structure of government and to all foreign ideologies. Our concepts of the past can no longer be applied to our present machine age. Social change will not be denied.

We have in our grasp for the first time in the history of the Continent the opportunity to usher in an era of abundance. A feat which will make the accomplishment of America's pioneers seem relatively unimportant in comparison.

Instead of embarking on a crusade to dump our surpluses abroad and to maintain scarcity at home, we could apply a scientific method of operation which would distribute our abundance.

We could provide every American with decent housing, adequate medical care, and proper clothing to meet all requirements and needs.

We can construct a continental highway system, integrate a fast moving and safe transportation system, eliminate peak periods of traffic, and increase the efficiency of the many conveyances at the same time.

We can install a Continental Hydrology which would conserve our natural resources, provide us with low-energy cost transportation, irrigation and a high-water table, and electrical power for the entire Continent.

We can apply the most efficient methods possible to eliminate human toil so that the American people will have time to enjoy life.

These, among other things, could be done to rehabilitate America for Americans and to reconstruct the Continent for the general welfare. This newsade, a Technate of a New America, would be the most worthwhile objective ever undertaken by this Continent. That is why we say that we need a Newsade, and to hell with the crusades.

September, 1953

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THE most powerful nation in the world — both on its own Continent and in international affairs — is the United States of America. It has the greatest industrial complex and it consumes the most energy and mineral resources of any nation. It has the largest navy and the largest merchant fleet. It has millions of men in the armed forces and millions of tons of military equipment. It has more atomic bombs than all the rest of the world put together, probably several times over.

The United States of America has the largest and most aggressive array of professional salesmen and business promoters. It has the most, and most arrogant, tourists abroad in the world. Its politicians, businessmen, and high military commanders proceed on the assumption that their country is the only one in the world that has a right to sovereignty — that all others must take orders from the U.S.A. The United States is the most aggressive in assisting and pushing wars of imperialism, both hot and cold; and its warfare is the most destructive of all time. It is ready, almost eager, one might say, to squander the lives of its youth on foreign battlefields anywhere. It stands ready to support any reactionary cause and to interfere with any area's becoming developed for the benefit of its own citizenry.

When a great nation aggressively forces itself into the forefront of world affairs and exhibits a superiority complex that is almost psychotic, one would assume that it has a great social objective and a national zeal for achieving that objective. What, then, is the American objective? Is it greed? Lust for power? A holy crusade to recruit souls for the prevailing deity? Or is it a quest for a more abundant and more pleasant way of life for the people of America and, perhaps, for the whole world?

No, it is none of these; at least, not in any pure form. Any of these would be too forthright and objective for American 'leadership' to espouse.

A careful study of the fundamental factors in American life reveals that the most pervasive and most coercive goal is the suppression of abundance and the maintenance of scarcity! Secondary to this national objective, and as integral parts of it, it is true, there are elements of greed, lust for power, and a zeal for spiritual conversion; but, in so far as the quest for abundance is concerned, there is only a hypocritical and superficial obeisance to it, while covertly it is being sabotaged.

The progress of America up-to-date can be briefly summarized thus: Struggle for scarcity; struggle out of scarcity; apprehension over the possibility of abundance; fear of approaching abundance; wailing about and cursing the arrival of abundance; hysterical struggle to restore scarcity through destruction of abundance.

Most of the events of American history are closely related to scarcity and the struggle to manipulate scarcity values. Wars, depressions, migrations, and political Deals have all been surface eruptions of this malady. As individuals, Americans have struggled to gain more and more wealth for themselves, both physical and monetary wealth; but the national struggle, entrusted to the social 'leaders' has been a finagling of the markets for the benefit of selected prime holders of scarcity value certificates.

The actual arrival of Abundance would depress the worth of such certificates and ruin the rackets that the Free Enterprise publicity men refer to so fondly as the 'American Way of Life.' And it would spell the end of all existing political and commercial institutions on the Continent. The present 'leaders,' then, would fall into social disgrace. Hence, it is understandable that the values of the Price System are being flaunted so vigorously before the people of America while some means of sidetracking or dumping the abundance is frantically being sought.

What Is Wrong With Scarcity?

The struggle to perpetuate scarcity in America is being handicapped by the philosophical concepts that have been promoted in support of the Price System. The first of these concepts is that of 'rugged individualism.' This gives individuals, both personal and corporate, license to wage anarchic economic warfare against the rest of the people. This concept is aided and abetted by the philosophical concept of 'free competition' and the rabid denunciation of any planned, cooperative action as 'creeping socialism.' Yet, it is this same anarchic competitive enterprise that has inadvertently hatched out the egg of technology, sired by science, which has been deposited in the Price System nest. This egg has produced a veritable 'Shmoo' — a source of abundance of all things. To control this 'Shmoo' and limit its production requires the utmost in national planning, cooperation, and vigilance. This 'requirement' is in direct contradiction to the philosophy of 'rugged individualism.' This contradiction is analogous to the example of the old time country preacher who spent the first hour telling his congregation that the Lord's Plan is all set, that the events of the future are predetermined and there is nothing anyone can do to change Destiny; then, he spent the next hour urging them to pray to God and request that the Eternal Plan be altered in accordance with their respective wishes.

It is because of this wide contradiction between the dogma of Free Enterprise philosophy and the need for strict collective regulation among Free Enterprisers that no effective regulation of abundance can be instituted and enforced. This principle has been amply illustrated by the failure of 'farm control' legislation to maintain a scarcity of farm commodities. There are just too many self-interested farmers who are prone to use the fundamentals of Free Enterprise philosophy to justify their own evasion of any collective conspiracy against abundance.

Abundance from Compulsion

The great social dilemma of North America arises from the fact that most of its citizens are directly or indirectly connected with some racket which depends on scarcity for survival, hence they tend to agitate for scarcity in their respective fields of interest and tacitly condone it, sympathetically, in other fields. As a result, there is no widespread opposition to the conspiracy against abundance; rather, each individual is hoping that, somehow, the scarcity values will be manipulated in his favor, enabling him to overcome the restrictions of scarcity for himself while they still apply to the great majority of the people. *Two thousand years of applied Christianity have done nothing toward raising the ideals of Western man above the level of private, selfish gain at the expense of his fellowmen.*

Therefore, nothing can be anticipated or expected from any moral reformation of the people of this Continent. We are as hypocritical in our morals as we are in our economics and politics, even as much so as we are in our wars. *If it were left to a vote of the citizens of North America, this Continent would never have Abundance* — any more than it would have had the automobile if the introduction of the automobile had depended on popular vote and approval. *When abundance is accepted it will come in as a compulsion, not as a collective quest.*

Let us, for a moment, consider the proposition that '200 million North Americans can't be wrong.' (Greater numbers of people than this, of course, have been consistently wrong for long periods of time; but, since we are proceeding from an assumed premise, we needn't pay attention to that.) Scarcity, then, must have some merits and abundance must be deficient somewhere. So, let us investigate scarcity and search out its merits to see if we may not be going in the wrong direction when we take opposition to it.

Scarcity provides people with want, hunger, and a dilapidated, make-shift way of life on the average and below average levels. This enables those who have been successful in acquiring more than their pro rata share of the scarcity to practice charity. This is a great Good, no doubt, for it inflates the ego of the giver and makes him feel important to himself, while it prolongs the life and poverty of the receivers, hence they can serve as objects of charity for a longer period of time. The more people there are in poverty and the fewer there are who have 'graduated' out of poverty, the greater the ego inflation of the few and the greater the spiritual blessings they derive from their charity handouts. (Possibly it is this quest for ego inflation that prompts so many of the more wealthy Americans to spend much of their time in Europe and (formerly) in Asia, where there are more poor people to look down on and feel superior over.)

Thus, one benefit of Scarcity is the opportunity it provides a few to give back to the poor a small fraction of the loot they have harvested from the economic system. Incidentally, slot machine operators proceed on the same principle, although with less hypocrisy and a more generous payoff to the 'clientele.'

Obviously, poverty is a spiritual Good to the people who do not have it; but, how about the people who do have it? It's Good for them, too; for, it gives them a chance to develop Character. Translated into practical terms, to have Character means that they have reconciled themselves to endure their poverty, work hard to produce more wealth for their lords and superiors, and not to take direct action to recover a larger share of the social wealth of the community for themselves. As noted above, their Superiors can develop Character in another way — by handing back a small fraction of what they take, via ostentatious charity gestures. Thus, Scarity gives everyone a chance to build up credits in the hereafter and that, all will agree, is no small argument in favor of Scarcity.

Servant of Free Enterprise

In the economic field, Scarcity serves a Good purpose, too. It helps to separate the pigs from the sheep and the wolves from the pigs. Since different people have different attitudes and capabilities in the economic field, it is fitting and proper that they be differentiated and rewarded more or less in accordance with their talents — the 'more or less' allowing for the play of luck, both good and bad. Thus, the people who are stupid enough to let themselves be sheared of their economic acquisitions should not receive the same rewards as those who do the shearing. You see, smartness should be rewarded more than dumbness. But, then, there are different degrees of smartness. Those who sit around on their fat posteriors and collect a take as a matter of favorable circumstance deserve to have it taken from them by the more cunning and aggressive Free Enterprisers, the wolves. These categories of people can develop, and be 'developed,' under conditions of Scarcity, but it is inconceivable how such taxonomic segregation could be achieved under conditions of Abundance. Thus, Scarcity allows economic Justice to operate; but, under Abundance, economic benefits would fall on the Just and Unjust alike, along with the rain and the sunshine.

Under Scarcity, human toil is more prevalent than under Abundance — as a rule, the more Scarcity the more human toil. Toil keeps people busy and

makes them tired and, thus, keeps them out of mischief and prevents them from doing too much thinking. Just plain mischief in itself isn't so bad: if it is destructive, it results in even greater Scarcty; and, if it is constructive, it wanders off into harmless art Creations, like pyramids, 'interpretive' statuary, and such. But thinking is something different. *It was deliberate and methodical thinking that gave rise to science and technology, and these led eventually to the 'evils' of Abundance, Security, and Freedom from Toil.*

When thinking is applied in the social field, it tends to spark-plug turbulence among those who have too little of the scarcity; and out of such things revolutions are hatched. People who work hard and have very little don't do much thinking; it is much easier and less irksome just to accept on faith what they are told. The trouble comes from renegade people who have lots of free time just to note problems and think about them. So, many ideas come from people who happen to have enough money so they don't need to work for a living, or who get themselves put in jail, or who just don't give a darn about 'getting ahead' and so don't employ all their time working.

The New and Untried

Scarcity has been the prevailing condition among human beings for many thousands of years; and, if there is one argument that bears stronger testimony for Eternal Truth than any other, it is that of durability. Many Verities depend for their major support on the cornerstone of durability. They have endured through the centuries, therefore, they must be True. Like, for example, 'you must earn your bread with the sweat of your brow' and 'crime never pays.' On the other hand, Abundance is new and untried. How do we know it will work? Scarcity has been with mankind for a long time and it has endured. We know it will work. It must be Good.

Scarcity has given rise to many wars and invasions, and these have proved to be cleansing and hybridizing agents to all continents. For example, the great historic and prehistoric invasions of Europe from the east appear to have coincided with periods of unfavorable climate and severe scarcity. Wars and invasions clean out the surplus population, get rid of a lot of the cultural bric-a-brac, and mix racial heredities. No army marches over an area without leaving its blood behind — in more ways than one. Further, wars generally eliminate much of the more virile manhood and those who have leadership ability; hence, the people who are left to go back to their toils and start building over again are mostly humble servants of Scarcity and are in no shape to think about the heresy of Abundance for at least another generation. *If there were Abundance, most of the incentives for war would be eliminated and their cleansing effect on humanity would be lost.*

The whole economic system of North America, as well as the systems of the rest of the world, are based on Scarcity and would not be able to operate under conditions of Abundance. Institutions and customs that are so well established should not be disturbed; it confuses people and makes them question the sincerity of their ancestors. The Price System, like the ox-cart, has served mankind for thousands of years; and it would be as unnecessary and heretical to replace an economic system based on Scarcity with one based on Abundance as it was to replace the ox-cart with the diesel truck. Our most respected statesmen have been those who advocated leaving well-enough alone and who introduced nothing new into the society — just zealously guarded the status quo. You don't make errors of commission if you always say 'no' to every proposed innovation. The introduction of Abundance will mean that many things will be changed, and how do we know those things will be Good? For the sake of safety and convenience, if not for tradition alone, we may as well stay with the Price System and forget about Abundance.

The political systems of the world and most of the laws are based on Scarcity concepts and values. Introduction of Abundance would not only change the economic system, it would change systems of government and codes of law, too. A great deal of time and thought were expended by many brilliant scholars on working out, for example, the theories of feudal government and laws regarding the privileges, responsibilities, and relationships of freemen and slaves. It was a shame that the achievements of all this brilliance should have been discarded so blithefully when technology came along and made slave labor too costly to maintain. *If Abundance came along, most of the books of law and acts of government would become junk over night.* Is it worth all that just to have Abundance? It's even worse than abolishing horses and the romance that goes with them merely so men can produce more in less time with less effort with power-driven machinery. How can human satisfactions that are derived from automobiles and tractors compare with those that were derived from the raising, care, and belaboring of horses?

Fosters Social Deterioration

Scarcity provides the causes for 95 percent or more of the crime and much of the disease and malnutrition. Although the superficial aspects of these may not appear at first glance to be socially Good, the end result must be argued as a valid reason for maintaining scarcity. Scarcity permits people with criminal tendencies to exercise their talents and thus reveal themselves, so they can be taken out of circulation. With Abundance, there would be no incentive for most people with criminal tendencies to commit crimes, so there would be no obvious means of separating the criminals from the non-criminals. Likewise, if people have plenty of good food to eat and receive frequent and thorough health examinations, those with biological weaknesses will be kept alive and healthy nearly as long as those who are biologically stronger. That would make it very difficult to select those who are biologically fit for war

from those who are fundamentally unfit; hence, the wrong people might be sent away to die in battle and the wrong people left home to breed a new generation for the next war.

So, you see, if we assume that the great majority of North Americans are correct in their social course, it is possible to logically rationalize the advantages of Scarcity and the disadvantages of Abundance along the lines we have suggested. Of course, we admit that we're amateurish in this field. Almost any politician, businessman, farmer, laborer, or ecclesiastic can do a much better job of it than we have done here. Their hearts would be in it, while we have to proceed from a position of forced detachment and hypocrisy — being in a position that is somewhat analogous to that of publicity men who must deliver eulogies over a dead politician, of whom, during life, they have been most critical.

The Big Obstacle

Had the issue of Scarcity versus Abundance come to our attention some fifty years ago (and if we had been around then), we could have used a beautiful argument in support of Scarcity. We could have stated emphatically that social change is contrary to human nature, since there had been no significant social change in some 7000 years of human history. Unfortunately, we can't get away with that argument now, in view of the many great changes that have occured during the past fifty years and the major adjustments that have occured in human behavior. *We know, now, that human beings can change their behavior to a remarkable extent to meet new situations.* So, the adjustment of the individual to Abundance will not be a serious problem. The big obstacle is the psychological resistance to giving up age-old concepts associated with Scarcity.

We do not hold any hope or illusion that this adhesion to Scarcity concepts and values will be overcome through voluntary and intelligent mass action. The people of North America do not have that much spontaneous initiative, nor do they have that much of an intellectual base for their behavior. The only reason they will change is because they will find that, in the course of their Price System endeavors, they are in a jam and all the highways and byways they have been accustomed to using no longer will lead them out of the jam. *They will then be forced onto the three-lane, unidirectional highway to the New America which has been ready for many years,* but which has been ignored because it isn't lined with Bingo Games, Gypo Joints, and other lures of the Price System.

For some strange reason, human beings will not organize to barbecue a steer so long as they have a chance to finagle a hamburger from some roadside stand.

When the distributive devices of Scarcity under the Price System are incapable of moving the accumulating abundance, and it piles up and gets rancid, *then we can look forward to a new type of distributive mechanism* — one that will operate on balanced load and turn out steak dinners instead of thin hamburger wafers on unbuttered buns. Yes, when the roadside stands can dish out only smelly samples of Scarcity at a high price, while the great bulk of the choice produce goes to waste (becoming an excessive overhead burden of cost), then, *the North American people will resign themselves to taking the brand new road into Abundance,* where the best will be provided in the most pleasant of surroundings without price.

Time for Decision

That time is not as far away as it might seem, for the 'blessings' of Scarcity are turning sour. Human toil, war, diseases, and slavish humility are not having as great a play in molding the Character of North Americans as the Price System requires.

More and more, you will be forced to question the efficacy of the Price System and the holiness of Scarcity values; and, more and more, you will be forced by circumstances to turn your attention to that straight new Highway into the New America of Abundance, which is Technocracy.

Here's a hint: why not do it early and avoid the rush?

—Wilton Ivie, CHQ

The Backbone of Our Civilization

THIS Monthly Letter can do no more than scratch the surface of a subject so vast, outlining in general terms the facts of an industry which, though basic to our home comforts, our standard of living, our productivity, . . . is taken as much for granted as are agriculture and our forests.

More than ever before, civilization depends for its continuance upon the minerals which sustain its physical existence. In an imaginary world without minerals we should at least have to do without such commonplace conveniences as railroads, automobiles, telephones, electric light and power, central heating, (etc).

Looking backward, we can see that every advance we made in a material way has been based upon new application of science through technology to mineral resources.

Minerals are the food of industry. Manufacturing and construction depend largely upon products of the mine.

The spotty distribution of mineral deposits is most unfortunate in a disunited world. Some of the highly prized minerals require such special conjunction of geologic materials and processes that high-grade deposits have been formed at fewer than a dozen places throughout the world. Nature may have supplied enough of everything, but she did not parcel out minerals in equal shares within the artificial political boundaries of nations.

Some countries, like the United States and the Soviet Union, have adequate supplies of certain minerals, but none has a satisfactory supply of all the essentials to a well-balanced diet. Nearly all the world's nickel comes from a single district in Canada; for many years a mine in Colorado has produced most of the world's molybdenum, and Brazil supplies virtually all the quartz crystal used.

Reserves of minerals range from some than are adequate for thousands of years to others which may be used up in ten or twenty years. Taking the long view, the world is short of zinc, lead, tin, mercury, platinum, petroleum, quartz crystal, mica and industrial diamonds.

The current rates of consumption present an altogether new problem for which past experience provides no certain solution.

The (fact) is, as attested by statements made by eminent geologists and mineralogists, that *we have extracted and used a greater quantity of mineral resources during the past half century than throughout all the preceding millennia of human history.*

If everyone in the world lived on the same standard as in the United States, it would require 925 million tons (of 2,000 pounds each) of iron to supply the earth's 2½ billion people. That would exhaust the estimated reserve of the great Cerro Bolivar iron deposits in Venezuela (half a billion tons of ore) in six months. On the same basis, world copper requirements would be 20,790,000 tons, but the world-wide output of copper in 1947 was only 2,425,000 tons, and world reserves were estimated at 110 million tons — enough for five years if everyone used copper on the same scale as people in the United States. The story is similar with reference to lead and zinc: the world's reserves would be exhausted in five years.

Whatever we think about the subject, there is no excuse for wasteful living. With some severity, Evan Just, a geologist who has had world-wide experience in mineral exploration, writes in *Technology Review*: "Having no conscience in regard to posterity that prevents our using tin for dog-food cans, sinking battleships for target practice, or allowing immense soil and fertilizer values to drain into the ocean, we at least know that . . . these wastes can be avoided." (We could minimize the wastage of our resources by applying the most efficient methods possible in the operating of the social mechanism rather than the present Price System industrial control which is based upon maximum wastage and maximum profits.)

Mineral resources are not renewable. The geological processes responsible for their presence continue to operate today, . . . but the rate at which these processes produce results is so slow that it has required hundreds of thousands of years to provide the mineral resources that men now use in a single year.

Excerpts from The Royal Bank of Canada Monthly Letter, Montreal, June, 1953.

We Must Save -- For What?

THE double-talk artists are at it again. And we are being indoctrinated and exhorted by various governmental agencies that we must save and conserve our natural resources; "We must keep America strong!" That is the theme of a pamphlet released by the National Production Authority. Its dramatic title is, "Top Management! Your Program for Emergency Scrap Recovery." The pamphlet is all dressed up with an impressive cataloging for ferreting out unused metal from such interesting places as automobile graveyards, farms and ranches (a plenteous source), junk yards and other likely caches.

CONSERVE is fine for a slogan and an ideal, but what is behind it in actual practice? Like so many pronunciamentos such slogans with a high-fidelity tone of patriotism, beyond the facade of stirring words is the obvious, the unwanton waste of our resources. While the powers-to-be whimper about the shortage of scrap iron and steel, untold thousands of tons either rust away, or else lie dormant and useless. Besides using millions of tons of critical materials to produce mere junk, the Price System operators, as usual, have commited this nation to the policy of stopping 'aggression' all over the globe, which is resulting in a high rate of destruction and depletion of our remaining irreplaceable resources. If this course of expending our resources continues, our high-energy civilization becomes highly vulnerable from disintegration within rather than from without our boundaries.

In an effort to preserve 'free enterprise,' it is necessary under a Price System to waste rather than to conserve America's resources. As a case in point,

the series of events which have taken place in the Windy City of Chicago present an excellent illustration. (Probably the same thing has or is taking place in your town or city.) As a means of relieving the pressure from an indignant public, the city of Chicago hired a self-designated transportation genius to take over the job of doing something about the antiquated transit system of the city. While making the Chicagoians think that the situation was well in hand, the insiders lost no time with the opportunity of capitalizing on this calamity.

One of the first steps was to decree that the streetcars must be done away with (put in moth balls or allowed to rust), and henceforth the commuters of Chicago would have the privilege of riding on nice, new, jackrabbit busses, or some odorless (?) propane busses. The fact that the busses could not hold as many passengers as the antiquated streetcars was of little concern to the promoters. And since these new conveyances, in a greater number than the streetcars, would roll on rubber (the rubber industry has no objections) and be darting all over the conjested streets with disregard for traffic, further confusion will be added to an already ridiculous traffic problem. While the purchasing of the busses would be profitable to those interests which were directly or indirectly involved in the transaction, it amounts to a needless waste of more of this nation's non-replaceable resources.

Waste for Profits

After the transportation 'experts' of Chicago had made the momentous decision that the change from streetcars to busses was the answer to Chicago's traffic muddle, the next step was to let contracts for the paving of streets with asphalt, covering up miles and miles of high-grade steel streetcar rails, complete with their fish plates, spacer bars and spikes. In complete accord with the best Price System ethics (such a word to use), this also provided an opportunity for the transference of large sums of money from the *collective pockets* of the taxpaying public to the *private pockets* of various individuals, namely, such substantial christian citizens as contractors who stood in well at City Hall. But until the Technate is established, and goes after such treasure troves of scrap covered up by asphalt, etc., that metal is to all intent and purposes lost to the Continent.

It must be pointed out that the busses required two wires to operate, which necessitated the restringing of the original trolley wire, and adding one to it. The additional use of wire may cause joy to the stockholders of Anaconda Copper and Brass Company, but such nonsense will hardly cause exultation on the part of those who understand the importance of our resource position or to those who now must pay twenty cents instead of the seven cent fare which they formerly paid without there being any appreciable improvement in service.

One can conclude that instead of solving Chicago's transit problem, the venture, as was intended, turned out to be very profitable to the manipulators who took the Chicagoians for a ride. The letting of contracts for the construction of lines, busses, paving of streets, etc., was instrumental in creating employment in the only manner the Price System knows. In the final analysis the entire foregoing project adds up to a technological misapplication of design, resulting in the waste of critical materials and man-hours of labor, just for the sake of profits.

Anyone who has been or is a member of the Armed Forces would get a kick out of that part of the already mentioned pamphlet which states in effect that "The Department of Defense has launched a scrap recovery program in the Army, the Navy, and the Air Force." Now who is kidding whom? In the first place, the combined military forces are among the largest metal consumers in the country, for end purposes which are perhaps best left undiscussed at this time. And in the second place, the military brass do not know what salvage is. Most former service men, who were stationed at various bases throughout the world during the past war, were in position to observe the willful destruction of America's resources. As a personal experience, some of us in the naval forces had the dubious privilege of being stationed at a repair base on the southern tip of Samar, in the Philippine Islands. Ostensibly, the raison d'etre of the base was to repair and refurbish the 'famous' Higgins Landing Boats. There must have been at least a thousand of the Higgins Boats floating in that bay alone at the time we were transferred out of the base in 1945. It would be interesting for the American people to know what happened to these boats and to the ships which this nation had in foreign waters during World War II.

There were many other first-hand experiences. One recalls that we were ordered to toss into the ocean such items as machine cartridge belts, loaded with live but 'old', and therefore, untrustworthy ammunition. A lot of good copper, brass (not of the military variety), and lead went "by the deep six," as the Navy quaintly puts it. Then there were bent propellers, or screws, to use the marine terminology, made of a high grade of bronze. The Michigan Standard Propeller Corporation made enormous profits from them, cost plus ten percent, while we shoved them overboard for the patriotic wage of sixty-five dollars a month or slightly higher.

Scrap Price System First

We jettisoned old anchors, too. After all, they were not worth shipping back — only made of hard to get steel. Bent propellers were discarded also. Bronze or steel, what's the difference? What else could we do, we got our orders from the military brass, and, no doubt, they got their orders from the dollar-a-year patriots in Washington. Marine diesel engines received a loving pat on the side with a sixteen pound sledge hammer and wound up on the junk heap.

At Saipan, new, crated B-29 engines were loaded onto pontoon put-puts, taken out beyond the reef (to deep water) and shoved into the water by small tractors. Then there was the CB Supply Dump on

Okinawa to which gravitated most of the mechanical equipage and rolling stock of the many bases which were being deactivated in early 1946. It was here that acres of jeeps, dump trucks, ammunition carriers, ambulances, truck or tractor-mounted cranes, half-tracks, ammunition carriers, amtracks, all jammed tight, rusting to hell and gone. On Guadalcanal large pits were rooted out by "cat" tractors to be filled with smashed (and unsmashed) jeeps, six-by trucks, et cetera, and then leveled over. Is this what the National Production Authority means when it states that the Armed Forces will launch a scrap recovery program?

And if one talks to those service men who have been fortunate enough to return from Korea, he can ascertain that the same senseless destruction of America's energy and mineral resources is going on today, while the Cadillac administration of the Price System tells us that we must save and conserve our resources. But until the present antiquated social control mechanism, which is designed for waste, is scrapped, and a technological design for maximum efficiency and the minimum wastage of our natural resources is installed, the question will still remain, "We Must Save, For What?" And that date of the installation of a new scientific social order is in a large measure dependent upon the present and future course of action taken by you, the citizens of the North American Continent. We urge you to Contact, Investigate, and Join Technocracy Now!

—John W. Coursell, MAL

We Can Have Widespread Unemployment or Abundance

ONE does not have to be an economic expert to realize what would happen in this country if from fifteen, ten, or even five million Americans were suddenly thrown out of a job or had their work week reduced. And yet, when we consider the technological and economic trends of today, widespread layoffs of workers from industrial cutbacks and shutdowns are becoming more prevalent, if not inevitable. While the trend toward increasing unemployment may not be noticeable on the surface or from reports in the press, there are many obvious and hidden facts, when correctly analyzed, which indicate that the employment situation of the nation is or has already reached a critical point.

Already many industries have been permanently closed and others are being forced to make steady reductions in their capacity because the market cannot absorb the goods and services now being produced. Typical of the trend are the flour mills of the nation. Since World War II, approximately 200 flour mills have closed and shutdowns among individual units of the industry have been mounting. So far this year the production of those flour mills still in business has been cut by 100,000 sacks a day. Not helping the situation any has been the steady decline in the consumption per capita of flour products and the decrease in exports. Although figures are not available on the number of persons who have been disemployed in this activity, it most probably runs up into the thousands.

Another industry which has had shutdowns and will have further reductions in its capacity is the automobile plants of the nation. The Automobile News reports that inventories of new cars have risen to 570,439 as against 277,962 on July 1, 1952. With present sales the auto factories could easily cut the work week or production 25 to 30 percent below its present level. A recent report states that Kaiser has shutdown; Hudson has reduced its production 55 percent; Packard 42 percent; Chevrolet 10 percent; Chrysler, DeSoto, and Dodge are cutting back production; and one producer is making a model changeover, unheard of in the industry at this time (July) of the year.

Probably no other business would welcome a nation-wide strike more than the automobile industry. The Nash Company recently used the strike at Borg-Warner, which supplied transmissions to Nash, as an excuse for halting its production and for laying off thousands of workers. But after the strike was over the officials of the Nash Motor Division had to admit that they could not open their plants until "the over-stocks of regular and hydramatic transmissions are reduced."

The auto industry has reached the point of inflection; the market has been saturated with new and used cars; and the future is bleak. But don't tell us that the super salesmen of 'free enterprise' have become helpless when faced with selling an abundance!

The trend toward widespread cutbacks and layoffs in industry is a general condition. Among the major industries which have been hard hit include textiles, lumber, home building, rubber, appliances, coal, etc. The textile business has been on the skids for the past two years. The *Wall Street Journal* brings out the fact that the total lumber production nationally — softwood and hardwood — has been bounding along at the rate of nearly 39 billion board feet annually, compared with about 25 billion in prewar 1939. This huge lumber output is racing far ahead of demand, causing the closing of many mills

throughout the nation. Since 1950 home building has dipped from 1,396,000 to about 925,000. It is estimated that for each 10 percent drop in housing starts results in a rise of 200,000 unemployed in the building trades and building materials. This means that the decline in housing starts since 1950 has ended jobs for close to 500,000 workers, and from all indications the condition will become worse instead of better. In spite of the large inventories of everything, refrigerators, stoves, television, etc., are still being produced far in excess of sales. For example, televisions are being produced at the rate of over 7 million a year while sales are at about 5 million. With the coal miners averaging only a 3-day week, the industry is producing enough coal to meet domestic needs and still has months of reserve supplies on hand. Probably no other industry has "had it," as the saying goes, more than the coal industry. From these facts it is evident that a drastic reduction in the work week and greater unemployment in the nation's industries becomes inevitable.

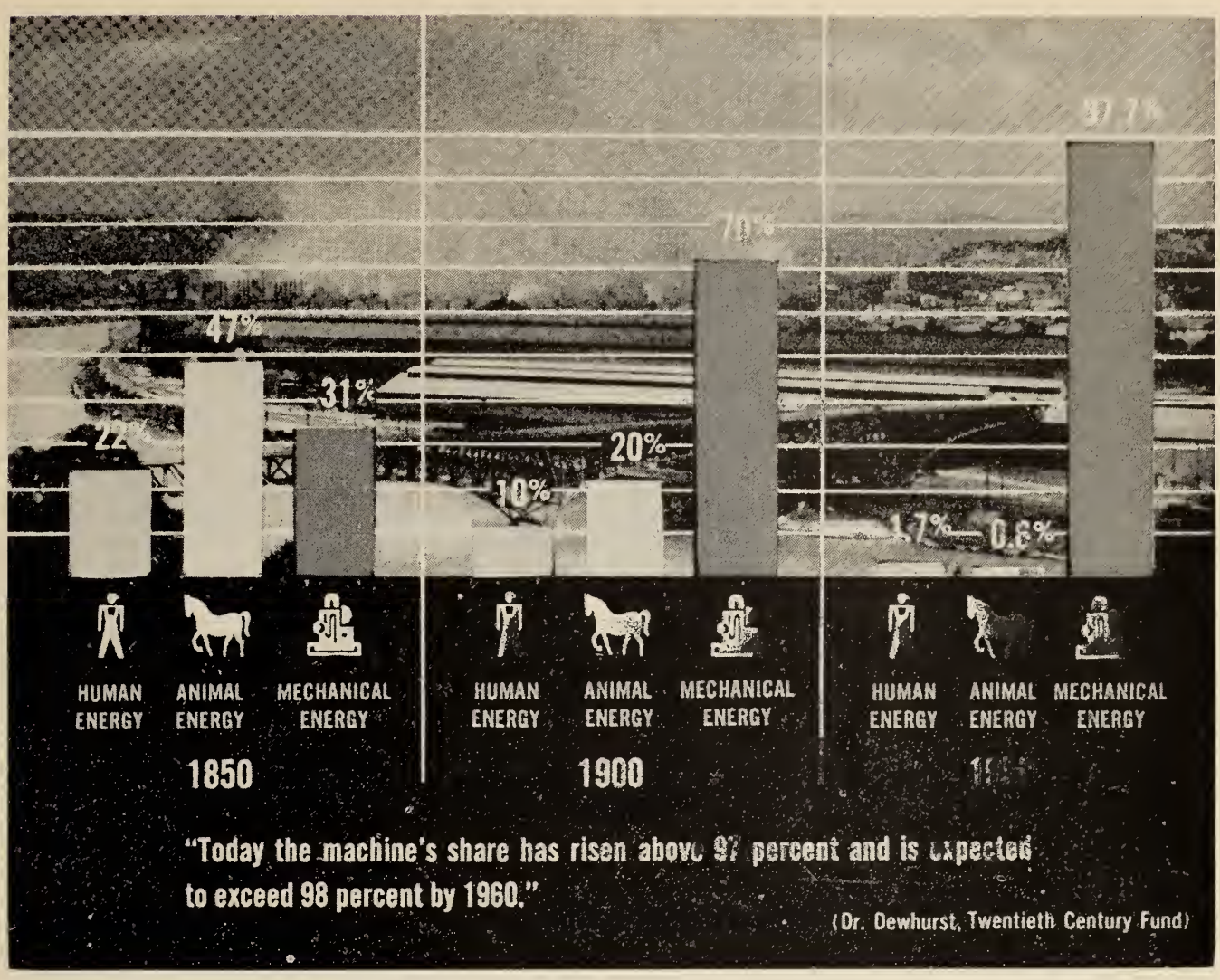
Abundance Forces the Issue

Apologists of private enterprise are saying that an armistice in Korea will not effect the economy. Possibly they think that ways and means can be found to continue defense expenditures at the present or at an increasing rate. But as Technocracy has stated, a limited war of unlimited duration will not be sufficient to keep the Price System going, nor will an unlimited war of unlimited duration. There are many facts to substantiate the latter conclusion, some, of which, we have already mentioned. Just before the outbreak of the Korean War the government was spending a yearly average of $12.6 billion for defense. Just at the time business was headed for a tailspin, the 'police action' in Korea caught everybody by 'surprise.' Shortly following the Korean incident of June, 1950, defense spending shot up to $41 billion by 1951, and then climbed to an average of $50 billion annually in the second quarter of 1952, where it has remained. While some $50 billion (15 percent of all goods and services being produced today)is being spent to prop up the economy, it has been insufficient to stimulate business activity. *Our technology has made it impossible to create artificial scarcity any more;* we can produce guns and butter at the same time in such amounts that the operators of the Price System cannot curtail, destroy, store, and give it away fast enough. No — it is not the communists who are forcing the financial, business, and political leaders of the nation to sue for peace or a breathing spell in Korea, but the fact that the ambassadors of 'free enterprise' cannot understand why an abundance of goods is piling up and business is in the doldrums when they have done everything possible to maintain scarcity on the Continent. *They are confused,* as most Americans are, *with what can and cannot be done with our technological abundance.*

Another factor which makes the future of business and the wage-earner rather dubious is the ever increasing individual indebtedness, amounting to about $90 billion at the end of 1952. Only by installment buying has business been able to keep consumption at a high level. But there is a limit to how far the consumer can be allowed to go into debt before the creditor is forced to collect or be forced out of business. A recent nation-wide survey made by the Northwestern National Life Insurance Company discloses that a greater proportion of the American families who use to have an installment paying load of 60 to 75 percent, now have an installment load that equals 120 percent of their income. The survey found the typical over-burdened family has an income at the present time of $3000 to $4000, owes 15 to 20 creditors from $1200 to $2500, and has no savings or cash resources. Even with no drop in employment many American families are going to have a tough time of making ends meet. Because the American people have gone into debt as far as can be tolerated under a buy and sell system, and the fact that the market is already saturated with new homes, refrigerators, automobiles, television, stoves, and johnny mops, it will be impossible for the manufacturers to produce and for the wholesalers, jobbers, and the retailers to sell goods at the present level. It will be necessary for industry to make large-scale cutbacks in production or shutdowns. When this inevitably happens, a great number of American families will be overwhelmed by distress; and the biggest back to the factory movement of goods in the history of American business will be on its way. *What all political movements have failed to do, our abundance has accomplished.*

The Only Alternative

"In the past, when man-hours of human labor formed an essential part of the goods produced, it was possible to maintain a socially tolerable distribution of the product by the means of a monetary payment on the basis of the hours of labor expended in the productive procedure." But with the ever increasing use of extraneous energy and automatic machinery, fewer and fewer man-hours of labor have been needed to operate the social system, resulting in less purchasing power to consume quantity production. In 1850 human labor and work animals accounted for 69 percent of the total work done, but today human labor and work animals account for only 3 percent of the total work performed. What does this mean? That human labor has become unimportant in the productive processes; and, that "any distribution of an abundance of production, based upon the man-hours of human participation can lead only to a failure of the distributive mechanism and industrial stagnation." It has now become imperative for this Continent to apply a new mensuration based upon the energy degraded in the production of goods



and services, a common denominator which will make it possible to produce and to distribute our abundance.[1]

[1]For detail explanation read Technocracy's pamphlet, "The Energy Certificate."

If we are to avoid the distress which comes from unemployment or disemployment under a Price System, we must install now a social mechanism that is compatible with the high-energy civilization of today — a Technocracy.

—Clyde Wilson - 11833-2

America's Foreign Policy Produces Opposite Effect

Annandale-On-Hudson, N. Y., (AP) — a leading birth-control authority said today America's foreign policy is resulting in more people, with less to eat, than ever before.

"It has been clearly demonstrated that our policy is failing," Dr. William Vogt, national director of the Planned Parenthood Federation of America, said.

He told a convocation celebrating the 93rd anniversary of Bard College that American overseas economic aid is abetting huge population rises, while food production lags further and further behind.

"If more billions of American dollars are spent overseas," he said, "the situation may be expected to deteriorate."

Vogt, author and expert on natural resources and conservation, said the dissemination of birth-control information and materials is the key to better conditions in world famine areas.

SCIENCE in the NEWS

EDITOR'S NOTE: The staff of the TECHNOCRAT has selected some of the latest information and developments in technological advancement, discoveries, and inventions which are responsible in changing our way of life from a system of scarcity to an economy of abundance. As the impact of technology descends upon the Price System, bringing with it an ever increasing rate of social change, the result will be a non-operative economy, unless we, the American people, have the intelligence to demand the application of science as a method of social operation.

The Man Without a Hoe

New Potato Bulker Speeds Harvest

One of the interesting pieces of equipment at the recent Annual Potato Growers Conference, Bakersfield (Calif.), was a potato bulker which, with a crew of three to seven, will do the work of 15 pickers and do it better.

This particular machine and one other of the same kind were used by the Osborne Brothers, Tulelake, Siskiyou County, last season on 400 acres of potatoes with good success. The machine costs about $4500 and it will pay for itself on 100 acres of good spuds.

They were able to bulk and load about 16 tons per hour, with one machine, in potatoes that were yielding from 250 to 300 sacks per acre.

This mechanical marvel can get rid of all the backache in the hand-thinning of beets. It covers up to 40 acres of sugar beets a day, cuts labor costs a third, and often boosts yields.

Mechanized Rice Growing Reduces Cost of Labor

Faced with increased labor costs, California growers have turned more and more to the machine in the growing and harvesting of rice.

A grower can, on 300 acres, using a tractor and two small self-propelled combines, produce his rice at an estimated 7.5 hours of labor per acre. Compare this with rice production in Peru where published figures indicate it takes 677 hours, which is relatively low compared to the hand labor needed to cultivate transplanted rice in Asia.

The cost of labor in California rice production would be about $9 per acre at 1950 wage rates and this includes the owner-operator's unpaid labor at the wages of the displaced hired labor. That makes labor cost equal to one-tenth of total costs on a farm operated by the owner.

Growers have also found that the labor need and farm investment are lowered by the use of hired airplane services for seeding, fertilizing and spraying. In 1950 out of the 55 farms polled, 53 were seeded by airplane.

Farms Grow Bigger

Out of the 1950 census figures on agriculture come some facts that make interesting reading, says the USDA, dealing with the size of farms throughout the Nation.

Thirty years ago there were 1,000,000 more farms on the Nation's list than at nose counting time in 1950. Figures show 6,400,000 farms in 1920 and 5,400,000 two years ago.

The trend is toward larger industrial farms and away from the home-labor of the family farm, the

report says. Much of this trend is laid to the increased use of mechanization on the farm.

The greatest increase is seen in the 500 and 1000 acre or more class. The 500-acre group has increased 40 percent in the last 30 years and comprises 18 percent of all farms, while the 1000-acre farms have jumped even more, with an 80 percent increase.

In 1920 the average sized farm was 148 acres which has grown to 215 acres in 1950, a 45 percent increase in average size.

New Cotton Chopper-Weeder Displaces Twenty Workers

Hand weeding and thinning has invariably been one of the most important and tedious chores which cotton growers must perform, but now a mechanical weeder and thinner has been invented which does the job quickly and efficiently, doing the work of 20 men.

The action of the new chopper consists of two arms which move from side to side along a heavy steel bar, creating a sort of sewing machine action.

The two-row chopper is adjustable in order to be adaptable to different width rows. It is equally successful on other types of row crops.

As it works down the row, it automatically thins the cotton to a spacing of 6 to 6½ inches, at the same time carrying on its weeding operation.

The chopper-thinner weighs about 400 pounds and is lifted up by the power lift on the tractor, at the end of each row or whenever the operator so desires, making turning and maneuvering easy.

An entire operation which in previous years employed as many as 100 to 150 men now requires five men to harvest a similar daily volume with this unique spinach combine. It will cut as much as 150 tons in eight hours.

ONION HARVESTER

This new machine digs, lifts, tops and sacks at one and one half miles an hour.

each farmer produced food and fibers for 4.7 people

each farmer produced food and fibers for 15.6 people

New Machines Revolutionizing Citrus Industry

The first standardized volume fill unit assembly in the world for packing citrus in cardboard cartons is installed and working at the Johnston Fruit Company, Santa Barbara, packing lemons.

It is particularly important to the citrus industry because certain machines and processes, long in experimental stage, have now become accepted and incorporated into one packaged unit. A packing house may order one or several units, know that they will be identical to each other, the parts interchangeable and that repair parts can be obtained.

Now that a standardized unit has been agreed upon, within the industry and by the Citrus Research Association, the unit can be produced on an assembly-line basis. Manufacturing costs will be reduced materially over the first installation cost.

The standardization unit makes the packing of lemons as nearly automatic as present research has proved practical. These units will revolutionize the citrus industry.

In this operation, the lemons are dumped on the conveyor belts which carry them to the drop-roll sizer. The sizer is five feet six inches wide and 12 feet long, with a continuous apron of rollers all turning to align the lemons endway. The various sizes drop through the rolls as the fruit progresses toward the opposite end. All the sizes, except odd sizes, are picked up by continuous belts that move them toward the packing machines. The lanes, each carrying a separate size, are arranged in a manner similar to a railroad switch yard. Fruit is diverted as the running sizes require. At the end of the line, the fruit is aligned in single rows by automatic fingers and dropped in boxes, counted by an electric eye while in transit. The filled box is carried on a conveyor to the automatic sealing machines.

William Tolbert, manager of Citrus Industry Research Association, states that much of the packing house machinery will be changed in the next few years and that even greater developments in labor-saving devices will result from continued experimental programs.

Research Increases Output Per Man-Hour on the Farm

Much of today's farm mechanization is the result of fundamental research. Research engineers at the many experimental stations throughout the United States know that the achievement of complete mechanization of agriculture is the popular goal of operating farmers.

In 1952, there were 4,170,000 tractors on American farms as compared with 1,545,000 in 1940 and 920,000 in 1930. During the past decade the number of motortrucks on the farms has more than doubled. Since 1930 the output per man hour on the farm has steadily increased through application of research findings. The output per man-hour on the farm in 1951 was 45 percent above that of 1940 and 86 percent above that of 1930.

There is every indication that greater improvements in our standard of living in the future, as in the past, will depend largely upon a greater degree of farm efficiency and productivity.

THIS MONTH'S COVER

This giant ditch digger digs 350 feet of trench, 10 feet wide and 11 feet deep in eight hours. Machines like this are making it impossible for Price System apologists to dupe Americans into accepting the idea that there is virtue in hard work.

Technocracy Is For Women -- Too

JUST what does Technocracy offer in the way of a solution to womens' problems in this age of personal and economic insecurity? Because the average woman's life is centered about her home and family, she automatically interprets ideas and events from that standpoint. She may have the intellectual curiosity to look beyond those confines and be acutely aware of the great clash of ideas that is manifest in the entire world today. If her home is equipped with radio or television, she is apprized of major events, which she may interpret according to her own understanding. She may accept the version as presented, take it "with a grain of salt," or dismiss it as not factual.

There are indeed many contradictory versions of the worldwide social and economic upheaval. There is the controversy between left and right wing factions. People in backward areas are rising up in revolt against the callous appropriation of their natural resources without adequate compensation, by various "civilized" races. But these controversies and contradictions have little, if any, effect upon changing the method of social operation. It's the impact of Technology which is bringing about social change and introducing new concepts throughout the world today.

Most people realize that our own soldiers have been used to make various portions of the earth's surface safe for private enterprise. Leo D. Welch, of Standard Oil of New Jersey enunciated thus in 1946, "Our foreign policy will be more concerned with the safety and stability of our foreign investments in the future than ever before. The proper respect for capital abroad is just as important as respect for our political principles."

How many mothers' sons have been sacrificed for the glory of dear old 'free enterprise'?

Just what is the real cause of all this commotion, the boom and bust cycles, astronomical public and private debt, piled up inventories, inflationary prices? Does the old "law of supply and demand" work? It is as obsolete as a fossil. The fact is, that while evolution has proceeded inexorably, man's social concepts have been at a standstill. Price WAS a measure of value when goods were scarce and the supply was not equal to the demand. But with the advent of power machinery, and especially since the era of electronics arrived, production has mounted far beyond the means of distribution under a Price System. Not that every citizen is surfeited with goods and services. About half our population exists on substandard rations in the midst of this abundance.

Because production under 'Free Enterprise' system is primarily for profit, prices must be high enough to allow each middle man his margin of profit. The price-tag, therefore, hangs like a specter between the potential consumers and the goods and services they desire. They are permitted to buy on credit and endanger their future security, for no one is free while overburdened with debt. In the parlance of western drama, history has been the sorry spectacle of government being *roped* into establishing a monetary system of debt-creation only to find itself *tied* up with a huge indebtedness, and carrying the *brand* of Big Business, which has now *hoisted itself into the saddle*. In the finale, Big Business is due to ride away into the sunset of oblivion, taking its bride, party politics along with it. Before the final curtain, however, there will be an interval during which the pair will use every device to remain in the picture. They will work their rackets for all they are worth, and *skin* as many of the *herd* as they can. When the going really gets tough, some bright characters will get wise and look for a more responsible type of leadership.

To Insure Survival

Stupendous size and strength do not insure survival. The ancient dinosaurs trampled upon thousands of tiny mammals during that bygone era, when temperature was warm and humid, and vegetation lush. Then came geological change. All those huge creatures perished because they could not adapt themselves to changes in climate and temperature. The mammals, however, did adjust themselves to the change. They were the forerunners of present mammalian forms, including mankind.

If size and strength are not so important to insure survival, as adaptability to change, then surely that social concept which is flexible, which has solved the economic conundrum, will be the arbiter of the new age of man.

The old order has created its own nemisis, for the more immovable stockpiles it produces, and the

more man-hours it replaces with kilowatt hours, the more unemployment will mount, and the less buying power there will be. *It will choke to death on its own abundance*. Some time in the foreseeable future, the Ice Age of Cold Facts will fossilize the Price System for future generations to read about and wonder why it took us so long. War, with most of our eggs in the munition basket, has postponed the inevitable a few years. But it consumes our irreplaceable resources as well as our sons.

Real Equality

To avoid choas, and achieve the transition into the New America as painlessly as possible, Technocracy urges that people study its scientific approach to the problems involved, and its conclusions. It offers an equally high standard of living to every citizen of this continent. No more price tags!

It offers peace, an elaborate system of self-defense, mostly technological, to discourage attacks from without. *No more sending our best specimens of manhood into scenes of indescribable carnage that make psychopathic material of them.*

The government of the Technate will operate through the medium of sequences, such as housing, public health, education, recreation, conservation, production and distribution and so on. As Howard Scott points out, "It can convert the gigantic energies of atom fission and fusion into the channels of collossal construction, for the integration of this continent, so that it may bring forth a new order of the ages."

The homes women dream about, hope for, may be realized. Even the most modern home of today will be passe' in the new America. Constructed of materials of which there is plentiful supply, they will be soundproof, fireproof, practically dirt-proof. They'll be air conditioned or heated by the same mechanism. Released from a seemingly endless routine of household tasks, we shall have leisure to do those things we have wanted to do, see the places we have wanted to visit. We can round out our education, venture into various scientific fields. Our status will be that of real equality with men, for economic independence and new opportunities to broaden our horizons should eliminate much cause of marital friction, and harmonize other human relationships. Just as positive and negative forces are equally important in achieving a manifestation, so should the masculine and unfettered feminine attributes conbine collectively to create the New America now.

Mothers will be relieved to send their children to school properly clothed and fed, remembering perhaps their own meager opportunities and the psychological results.

An occasional oldster may bemoan the almost complete lack of hard work in the Technate, having been raised to believe human toil is necessarily virtuous. But even now workers are being ruthlessly disemployed as fast as they can be replaced by machines. Social change is rushing upon us and we must adapt ourselves to frequent innovations.

The Technate expects to concentrate on the social mechanism and see that each citizen gets his share of available goods and services. No inquisitions to pry into your religious or philosophical views, and there will be no politics to think about.

Preventive measures will be taken against disease that has flourished because of ignorance, poverty, or unsanitary environment. Medical and other scientific research, no longer stymied by lack of funds or necessary equipment, will progress rapidly. There will always be incentive toward progress, toward still greater knowledge.

Your Help Needed

But all these good things await the installation of a Technate. Meanwhile, the Price System is still with us, with its wars, its slums, poverty, crime, graft, and increasing chaos. We are still physically and economically insecure.

Women and men alike are needed to study, to Join Technocracy, and spread the 'good word.' Prepare yourselves to help lead the way to Abundance, Social Advancement, and Permanent Security.

—Henriette Phillips - 11140-1

A Technological Control

Maybe there's a rosy tinge to your driving future.

A laboratory car at RCA's David Sarnoff Research Center in Princeton, N. J., can:

1. Steer itself along a prescribed route.
2. Stop when it approaches a metal obstacle.
3. Turn out to pass a slower car.

According to an announcement about the five-foot electronic auto, you would have no driving worries at all, including being cracked up by careless drivers.

The whole system involves electric cables under specially constructed highways, with electronic equipment controlling the steering gear and picking up wave impulses from the cables.

Will These Be Dyed?

Potato prices head down as crop prospects look up. As of August 1, Federal farm men prophesied 1953 spud output at 383 million bushels, 6 million above the July 1 forecast and 35 million over 1952 pickings. In the New York market, new-crop Maine potatoes for November wholesale at $1.65 a bushel; the comparable price a year ago was $4.25.

CRITICAL COMMENTS

of the News

Reprinted from TECHNOCRATIC TRENDEVENTS

McCarthy's Fascist Inquisition

Roman Catholic Joseph McCarthy's special investigating committee proceeds to label, directly or by innuendo, all non-Catholics as 'communists.' This committee clearly is following the techniques and objectives of Roman Catholic Fascism and has every appearance of being an instrumentality of it. This same technique was exhibited and 'perfected' in Europe during the 1920's and 1930's and was instrumental in bringing Hitler, Mussolini, Franco, and similar ilk to political power. In Europe then, as in America today, there was no general recognition of the Fascist menace and no united opposition to it among the intellectuals and liberals — and soon it was too late! The social cost of such negligence was staggering.

In America, a steady stream of victims appear before the fascist inquisition and none of them appear to recognize the menace as being anything more significant than a personal attack on themselves. For example, when Owen Lattimore and Methodist Bishop Bromley Oxnam appeared before the inquisition, they had a superb opportunity to throw the issue into the open but, instead, they tried to play a puny game of personal self-defense against a stacked deck. They failed to recognize or heed the warning symptoms that the real ideological conflict in the world today is a fight to the finish between Roman Catholic Fascism and the rest of the world. The Jews, Protestants, anti-fascist Catholics, and other accused categories may suppose there is a difference of ideology between themselves and communism; but to the Catholic Fascists, there is no distinction. 'Communism' is just another name for 'heretic,' and on that basis McCarthy and his stooges and backers are pushing the attack to win America for Roman Catholic Fascism.

Silent Shift to the Left

Western policy has suffered a number of setbacks in recent elections in various countries of the West. The large Communist Party gains and Catholic Centrist losses in France and Italy have been played down in the American press and on the radio nearly to the point of complete silence. Likewise, shifts to the left in Australia, Britain, and Latin America have scarcely been mentioned. We presume that much of this shift is due, not so much to sympathy with socialism as such, but, to a protest against the puerility and chicanery of the tory democracy and Catholic fascism of the West.

Revolt in East Germany

Ever since the end of World War II (and before) the United States has spent many millions of dollars and has trained many espionage agents to foment dissension, rebellion and sabotage in the territory controlled by the Soviet Union. The area receiving the most attention is East Germany, with the focus in East Berlin. The pay-off on this policy appears to be a fiasco.

Coincidental with the relaxing of Soviet controls in East Germany and the threat of a truce in Korea, an anti-communist revolt was spark-plugged in East Germany, utilizing a minor grievance of the workers as a bait for popular sympathy. It would be naive, indeed, to suppose that the instigation of the revolt was entirely internal.

However, the timing appears to have been forced as an act of desperation in the face of a relaxation of cold war tensions. From all indications, as this is being written, the rebellion failed in its objective and has merely served to expose the conspirators to arrest and reprisals. Thus, it develops that another attempt to create an incident in Europe has backfired.

Snafu in Korea

As a consequence of pressure from our 'allies' in the Korean War plus major concessions on the part of the Chinese and North Korean negotiators, a truce in the Korean War became almost inevitable. In the United States, a sort of panic was developing in political, economic and ecclesiastical centers, with jitteriness in the stock market being a conspicuous symptom of the 'peace scare.' The situation called for desperate action.

Syngman Rhee had been brought out of a long exile by the United States and set up in Korea after World War II as a pro-fascist puppet. He was utilized as the head of an anti-Russian faction in Asia. When the American economy was headed for

a nosedive, a series of 'border incidents' by the South Koreans ('under U. S. observation') resulted in the invasion of South Korea by the armies of North Korea. When the U. S. jumped into the war and eventually repelled the aggression, Syngman Rhee's ROK army again served a purpose. Contrary to the objectives of the United Nations and the authority of the Far Eastern Command, the South Koreans invaded North Korea — an act which was satisfactory to the Far Eastern Command.

Now, again, by releasing the controversial prisoners of war (over whom a truce in Korea has been stalled for nearly two years), Syngman Rhee has served to salvage the war and delay the truce. Whether or not Rhee is acting on his own or through undercover instructions is of secondary significance; for, he represents the type of regime which America has been upholding in Korea and for which American lives and wealth have been lavishly sacrificed.

City Transportation Fares Go Up and Up

The New York City Transit Authority has just raised the fare on city buses and subways to 15c per ride. This is three times the nickel fare that prevailed until 1948. This same type of inflation has hit most city transit systems across the country and continues in progress; and it makes little difference whether they are politically or privately regulated. Long distance travel also costs more than it used to. One would naturally suppose — if one were naive about Price System ways — that transportation systems are set up primarily to provide a means of travel for people who want to go from one place to another. But it isn't as simple and direct as that. The primary purpose is to collect fares from the people and make a profit for the investors. As a secondary purpose the transit systems provide employment to drivers, repairmen, and money collectors. That people are transported from place to place is incidental and it is the fulfillment of the need for this service that provides the inducement to make them pay the fares. Thus, the transit systems do provide a service of a sort or they wouldn't be able to collect fares. From the standpoint of the owners and operators, the problem is not how to provide pleasant, easy, and efficient transportation but how to run the system at a profit, regardless of the inconvenience and delays that the riding public must endure.

With the abolition of the Price System, the local transportation systems would be concerned only with carrying people at a minimal social cost and with the optimum of convenience to the riders. This would be greatly facilitated by eliminating all fares and letting the society as a whole absorb the operating cost as part of the general overhead. The passengers would get on and off the carriers at will and free of Price System interference — no bother with entering through narrow defiles, collecting fares, issuing transfers, or changing money. *The collecting and accounting for fares now amount to half or more of the cost of running the transit systems.* In the Technate, service to the public will be the only function and objective of a passenger transportation system. But the Price System must charge a price and collect a 'take' — the more and the oftener the better — as the first consideration, and service to the public is merely incidental.

Attorney General Violates Law

A recent ruling of the Supreme Court of the United States directed that, before an organization can be listed as 'subversive' by the Attorney General, it must be given a trial and the basis for its being considered 'subversive' substantiated with facts. Nevertheless, this past month, the Attorney General listed 62 organizations as 'subversive' without trial, hearing, or presentation of evidence — these being in addition to nearly 200 organizations previously listed by a former Attorney General. (Of course, Technocracy Inc. was on neither list.) In listing these 62 organizations, the Attorney General stated feebly that any of them would be entitled to a hearing on request. It is interesting to note, in reading over the list, that an organization apparently is automatically regarded as 'subversive' if the name contains any of the following words: Jewish, Negro, Peace, or Welfare (unless it also contains the adjective 'Catholic.') Thus, another 62 organizations in the United States are stigmatized without trial, hearing, or the presentation of evidence — merely on the say-so of one man who himself evades the law by saying so.

In the meantime, the largest and most subversive organizations in the country continue to operate against the general welfare unmolested, among them: The National Association of Manufacturers, the United States Chamber of Commerce, The Roman Catholic Church (political and economic hierarchy), The American Medical Association, and the American Legion. There are many others, but these are some of the biggest and most powerful examples of organizations which are destructive of the general welfare of the American people as a whole. At least one of them has all the elements of anti-Americanism, namely: foreign control; subservience to a foreign power; fascist-totalitarian structure; active policy of infiltrating, subverting, and overthrowing the constituted authority of the land; intolerance of individual and organizational freedom; operation of an international espionage system, which also extends into every facet of American life; interference with freedom of information, assemblage, and speech in America. In the presence of such organizations, the Attorney General sees not, hears not, and speaks not.

'The Curse of Abundance'

The Wall Street Journal of July 1 carried an editorial entitled, 'The Curse of Abundance.' That is an open disclosure of what American Business thinks of a plethora of the good things of life. Business is dedicated to scarcity and high prices. America can never have its 'Rendezvous with Destiny' so long as it has the dead albatross of Business Enterprise around its neck. When any system or institution condemns abundance as a 'curse,' it is time that system were being eradicated. The only antidote for the Price System is Technocracy. The Monad Symbol of Technocracy stands for dynamic balance between the production and distribution of Abundance to all inhabitants of the North American Continent. It's time for a Big Change.

—Techno Critic

The Reader's Corner - - -

QUESTIONS FROM OUR READERS—(Editor's Note: Readers of The TECHNOCRAT are invited to submit brief questions on matters pertaining to the social problem of North America or on points of Technocracy's program which are not entirely clear to them. Questions must bear the signature and address of the writer; this is for reference only and will not be used in the magazine. The Editor reserves the right to select the questions to be used and to change the wording, if necessary, for brevity or clarity.)

How does Technocracy expect to reach its social objectives?

The objective of Technocracy is the application of science to the social order — the Technate of a New America — a social blueprint based upon essential materials which are already available on this Continent, and only waiting popular assent for its institution. This mandate of popular assent will come only when the pressure of events now reacting upon our social environment have brought the American people to the point that only a technological solution will meet the social problems of our present high-energy civilization.

The probability of the American people accepting Technocracy's design for the North American Conmust be considered in relation to the following contributing factors:

1. The ever increasing acceleration of the impact of technology with its resultant abundance of goods and services, and the inability of the Price System to distribute this abundance.

2. The limitations to the growth of debt at a compound rate, and the artificiallity and unsoundness of such a method for continued expansion and existence.

3. The decline in effective purchasing power resulting from declining man-hours and increasing disemployment through the use of automatic machinery, increasing taxation, higher cost of living, etc.

4. The widespread and commanding intolerance on the part of the American people toward all schemes, promises, and reforms for the preservation of an obsolete Price System and the perpetuation of insecurity; and the need for planned direction when the time comes, now imminent, to prevent chaos when the Price System can no longer operate.

Technocracy is the only organization on the North American Continent which is preparing the American people to meet this transition into a New America of technological abundance.

Why does Technocracy stay out of politics thus allowing other groups or interests to gain control?

In the first place, Technocracy has no theory for assumption of power or control. Second, our social problem is no longer political, but technological. The wanton destruction of our abundance instead of its distribution presents a very good example that the political approach cannot operate the present high-energy social mechanism. The politicians can only make promises and appropriate your money through increased taxation. They are incapable of operating the technological mechanism which now exists on the North American Continent. Our high-energy civilization calls for a new leadership

of technologists, engineers, and scientists who understand the functions which must be performed to operate the entire physical equipment of this Continent.

Technocracy is not a pressure group, but an organization which is concerned with the welfare of all North Americans. By becoming involved in politics, Technocracy would surrender its entire position and pass into oblivion along with all other political movements in America. Let us not forget that Technocracy remains as the last bulwark of the North American Continent.

What will be done to those people who will oppose any change in the system and will fight to the 'last ditch' to preserve 'free enterprise'?

These people will be in the same boat as the rest of us; all of us will reach the 'last ditch' at the same time. It will be their skins as well as ours. When the Price System ceases to operate, they will have no other alternative than to accept a new social order. A few diehards will try to prevent a change from the old to the new, but we can only pity them when the ripe time comes. Social change is no respector of persons regardless of previous position, color, or creed. If anyone gets in the way of this social change, their life won't be worth a 'plug nickel.' Instead of worrying about the other person, what about you?

If a Technate is such a good idea, why hasn't some other country set up one before?

A technate would require an adequate supply of mineral and energy resources as well as the installed technological equipment and trained personnel to convert those resources into an abundance of goods and services for the entire population. Our vast energy and mineral resources, which are primary requisites for any high-energy civilization, occur on the North American Continent in quanities which do not exist in other geographical areas of the world. Because of the unequal distribution of the world's resources, a highly developed industrial mechanism would be a physical impossibility in many other parts of the world.

So long as conditions of scarcity exist, as they do in all other parts of the world, various choices of regulation are possible. Business and politics are able to gain power and dominate the social operations.

The vast array of technological equipment which we operate in North America today has been made possible by our abundance of resources and the tremendous technological advances which have taken place since the invention of the steam engine. The ever increasing use of extraneous energy on this Continent makes it imperative that we install a new method of social operation — a Technate of the North American Continent.

Archbishop Says Dislike of Work is Dangerous

THE BOSTON HERALD, May 25, 1953 — Work has become "hateful in our times," Archbishop Cushing told more than 2,000 employees of the Boston Naval Shipyard in a communion breakfast yesterday. He called on his listeners to remember that "work, real work, is a blessing, a physiological necessity and a spiritual one as well."

"The drive of some of our social planners to reduce working hours to a few hours a day in order to leave every man with many hours of leisure shows a pathetic ignorance of the real nature of man," he said. "The repugnance for work, the wish to avoid work at all costs . . . are unhealthy, unholy and unfortunate signs of the times. Never did it appear more grimly as a curse of Adam as in these days, when the dignity of the work and the worker has been stripped away by the machine."

"The habit of work has declined for a variety of reasons and industry's major problem is to revive it with suitable inducements," he declared. "Christian philosophy welcomes work as a joy," he said. "People who work, who work hard and all the time, may have their occasional aches of head or pains in the back. But they avoid the one disease which is fatal to happiness of soul, however, it may spare the body; it is the one ailment from which I pray God to deliver me — boredom due to idleness."

"The chronic loafer is not merely a nuisance; by Christian values, he is a sinner," he observed. "The do-nothing is anti-social, but he is worse; he is downright immoral. Work is the duty of every man."

(Thus, an echo from the Dark Ages is heard in America; and Roman Catholicism seeks to bind Christianity to the by-gone and decadent principles of Toil, Scarcity, and Fear and to undermine the American Way of Technology, Plenty, and Security with threats of spiritual retribution.)

Far From Poverty

Contrary to the reports which we receive in this country concerning the production and the standard of living in Eastern Europe, the latest United Nations Economic Report indicates that Eastern Europe's production has increased since 1951 and prewar years. Industrial production in 1952 surpassed the 1951 level by 24 percent in Hungary, 23 percent in Romania, 20 percent in Poland, 18 percent in Czechoslovakia, and 18 percent in Bulgaria. The report claims that these nations are spending fourteen times as much for education, health, and social welfare as in any prewar year.

A New Concept Is Needed

THE impact on human society of the tremendous increase in the rate of energy conversion since 1800 has, for example, enabled the world to increase its population from 800 million to over 2 billion during that time. The complexity of our industrial mechanism can be resolved and effectively measured by means of certain basic commodities whose production rate determines roughly the status of production in general. These are coal, iron, petroleum, ferro-alloys, copper, zinc, natural gas, etc.

In this way the scientists and engineers of the original Technical Alliance were able to observe long-term, unidirectional trends, which had formerly gone completely unnoticed by economists of the time who had their hands full trying to interpret the particular short term oscillation on which the nation's business happened to be operated at the time.

At present, a few of the less myopic of the nation's highly publicized economic soothsayers are beginning to realize the validity of Technocracy's original conclusion, namely that the antiquated social controls of the past are no longer adequate to meet a situation completely reversed from the one which originated out of concepts of scarcity.

Of course, we are interested in just how and why these controls operate (or fail to operate), and we do this by tracing briefly the origin and history of the various concepts which constitute the basis of Price System control. By analyzing these concepts, which we've been taught from birth to accept blindly as being part of the eternal nature of things, we can learn a great deal. For instance, we are then able to grasp the futility of applying these notions to a solution of today's problems.

A Price System, that is, a system which distributes goods by means of evaluation in terms of a single commodity (money), is characterized by the concepts of "property," "trade," "value," "debt," "money," and "wealth." Let us consider just one of these notions: that of "property."

What is property? Funk and Wagnall define property as the "regal right to possession, use, enjoyment, and disposal of a thing." Now let us examine this more closely. You own an automobile. It is your property. However, should you exercise your "regal right" to drive it at night without lights, if you fail to have your horn operating properly, if you neglect signals, stop signs, and a thousand other safety restrictions, you should find yourself explaining your "property rights" to the police.

The things you are permitted to do with your car depend entirely upon where you happen to be, and when. Therefore, we can only conclude that, at least in the case of your automobile, "property" consists entirely in what society *allows* you to do with a thing. But this is constantly being changed by new laws, street signs, highway engineers, and oil companies, etc. *The "sacred rights" of property are indeed not quite as immutable as one might think.*

Twenty thousand years ago the Neanterthal Man wandered over the earth. He was a very small, squat creature with a ford-thrust head who lived in caves. Life for him was really unpleasant. He was in constant danger from wild beasts, and even from his fellow man. At first he lived apart with only his mate and a few children. He spent his waking hours hunting, eating his catch raw. He had no concept of property rights. If he experienced a desire for anything, say a sheltered niche in the cliff or a pretty female, he took it by force if he could. But as centuries wore on, man found it considerably easier to survive if he joined a group, for mutual protection and safety against the many dangers that threatened his life.

Eventually the tribe thus formed found it necessary, in order to avoid continual fighting among its members, to adopt a *mode of behavior* toward the few physical objects available. Each man who found a sharp stone, or a stick to use as a weapon, no longer found it necessary to fight for its possession. The behavior pattern of the tribe allowed him the free use of the object.

Strange Dilemma

Thus the germ of our notion of "property rights" was born. However, and note this carefully, the tribal fire, the cave in which they lived, etc., were not regarded as personal property, but the property of the group as a whole, and hence the notion of public, or community property arose. It is interesting to note here that, since that time in prehistory when men gathered into tribes, a slow process of conditioning has occurred, such that objects of "value" which were naturally assumed to be "public property," such as land, trees, game, tribal buildings, etc. have slowly become the *private property* of certain individuals in the various human societies. These individuals have been those shrewd enough or powerful enough to persuade society to tolerate their monopoly. Looking at the world today, we can readily observe that it is precisely these certain relatively few individuals who have possession of property rights to the bulk of the earth's riches, who

are tacitly banded together for the purpose of maintaining the status quo, i.e. preserving their monopoly over property rights.

As particular individuals acquired more and more property rights as history progressed, they or their heirs gradually took over control of governments. This trend has accelerated in recent times, until, as an illustration, the inhabitants of North America find themselves in the strange dilemma of living on the richest area of the earth's surface under a social system controlled by a comparatively few "clever" individuals, who not only own most of the physical resources (and restrict their use to those who can pay the toll), but have actually engineered the complete protection of their monopoly by police forces and courts of law, and in so doing have the full sanction of public opinion, churches, and schools.

Philosophical justification of these practices fills our libraries. "Advanced" and "Liberal" political and economic "thinking" does not deviate more than a hairsbreadth from these sacred concepts.

Without Validity Now

The people are reassured constantly from press, pulpit, and radio that the existing state of affairs is a "natural" and highly desirable arrangement, with arguments which have been carefully fashioned and refined over the past three thousand years.

Technocracy humbly submits that, given a similar period of time and an equal amount of philosophical juggling, we might have an equally convincing brief for the thesis that is black and white.

To resume our story, primitive peoples soon evolved folkways, usually centered around an authority, such as a king or queen who had essentially complete power to settle disputes and decide group policies. Anthropoligists can only guess on this point, but whatever the explanation, it was not long before rulers adopted a "supernatural" claim to their position, supported of course, by the prevailing priesthood.

As centuries wore on the tribesmen came to accept the authority of their chiefs as much as the leaders, in turn, accepted without question the omnipotence of their gods. In view of the climate of superstitious fear which prevailed in mans early history, it is scarcely difficult to imagine why this process was so successful.

As social mechanisms became increasingly more complex, the rulers, being unable to handle their entire administrative tasks alone, began to appoint deputies to handle disputes and maintain order; legal codes (unwritten) developed, and it is this process which inevitably allowed man to extend his property rights to more than personal possessions. He could now exercise property rights over extensive land holdings, fleets, slaves, and even whole sections of population, provided he could contrive to have these rights respected and upheld by the ruling military authorities, or, failing this, attempt to overpower that authority by his own. Thus it took many centuries before man was able to extend his personal property concept to resources, land, and other sizable physical objects.

As commerce between far east and west developed, merchants slowly acquired an importance in the social scheme which they had never before enjoyed, but in general these activities were still largely controlled by the ruling military class.

By the sixteenth century, to leap ahead, the mercantile system was developing, and the concept of property was firmly established as part of the "fundamental" nature of human relationships. Under this system, competition was great between the prevailing world powers, that is, England, spain, Portugal, for gold and silver. The accumulation of money was held to be the primary concern of every nation, since money meant larger armies, and armies meant power in a world which respected force alone. Under these conditions, the concept of a "favorable balance of trade" naturally evolved; the basic idea being to sell more than you buy in order to accumulate the surplus in gold. This concept had some validity in the sixteenth century, but it is a sad commentary on world statesmanship and economic thinking that this amazing notion is retained today by many political and economic "experts." Why not follow this favorable balance to its ultimate, the state of unidirectional flow of goods outward, while not is received? In this way our own American businessman could accumulate even more of the nation's debt tokens, while our national government accumulated more of the World's IOU's than it now holds. But, of course, this could not be done as other nations throughout the world have a Price System, too, and they are now clamoring for "trade not aid." Whether the valiant efforts of business enterprise are taking the United States toward this state of affairs, we leave for every citizen of this country to ponder.

Must Replace Outmoded Concepts

Most of us are, of course, familiar with the general trends of history from the sixteenth century to the present, with its unprecedented scientific-technological advances. Those individuals who possessed property rights to most of the known resources of the world continued the struggle to acquire those which remained. The concept of the nation, with its attendant tradition and patriotic fervor, was a very useful tool in the hands of those who wished to acquire territiory and resources controlled by others. In this process new lands were explored and plundered, the less advanced populations intimidated, enslaved, or murdered, and vast colonial empires created. Religious missionaries were sent in large numbers to convert the "barbaric" heathen to Western religious doctrines.

A huge protective barrier of ideological conditioning as well as organized force was errected around the sacred shrine of "private property," and its exploitation. It was incorporated in religious doctrine, legal codes, and given moral and ethical eminence. Note carefully that all this *occurred under*

the benign rule of those who possessed property rights with respect to nearly everything worth owning!

Is it surprising then, that today, even while America's resources are being dissipated at a tremendous rate, either in warfare or in some other irresponsible phase of business operation, her citizens still tremble at the thought of modifying their attitude toward the glorious idea of "private property?"

Nevertheless we are faced with the fact that the notion of private property has become a symbol, not to be molested, regardless of the social results of its unrestricted application.

Technocracy asks all intelligent Americans to analyze the nature of these Price System concepts which so completely condition our lives. Under the light of the scientific approach, they can be seen for what they are; mere pieces of the folklore of a superstitious, ignorant past, which have little meaning in the external physical world. They control our way of life only so long as we attribute reality to them. Technocracy again asks: How much longer can we delude ourselves?

If you want to know Technocracy's design, which must replace these outmoded concepts of this Price System with new concepts compatible to our technological society of abundance, Join Technocracy Now! —Roy Huff - 11834-1

Cogent Statements

The principal purpose of modern technology is productiveness, therefore it is the instrument that will destroy any system that curtails production, creates artificial scarcity or legalizes waste for the sake of profit.

The mature development of modern technology has opened up wonderful possibilities and new probabilities, bringing us to the threshhold of abundance. It can take us no further without social acceptance of a requisitional system operating without price.

Modern technology is the ruthless foe of human toil,
It is the conquerer of the status quo,
It is the deadly enemy of Price System business,
Yet, it could become man's greatest benefactor.

Opinions vacillate while facts cannot be reputed. Recorded facts that have been tested, verified, and correlated are the sign-posts that lead to a peaceful solution of our social problems.

The machine-age does not make us independent. Automaticity, which has brought about mass production and continuous labor-displacement, has forced us to a condition of interdependence. If we recognize this fact, then we can utilize the progress of science for the economic security of all.

—Chas. A. Salyer - 11834-1

CHANGE OF ADDRESS

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8113 South Vermont Avenue
Los Angeles 44, California

Deeds and Words Are Two Different Things

Getting Uncle Sam out of business is tougher and more involved than House Government Agency Operations Committee realized until recent hearings. Examples: U. S. Navy manufactures its own paint, has been making its own rope for 116 years in Boston. The Armed Forces all conduct retail merchandising operations (commissaries, post exchanges, ship's stores). Government agencies manufacture clothing, roast coffee, produce wooden boxes, furniture, and ships; run banking and insurance ventures as well as transportation and communications systems. So far, the House unit is merely studying the problem, hopes to curb many such government activities in coming year.

The Sellout and the Big Steal

Pittsburgh, June 17, 1953 — United States Steel Corp. has increased base prices of its carbon steel products an average of $4 a ton as the result of last week's labor agreement raising wages 8½ cents an hour.

Other major steel producers, who granted similar wage increases in agreement with the CIO Steelworkers, were expected to follow U. S. Steel's lead in advancing prices.

Last year the Government gave the steel companies an average of $5.20 a ton on carbon steel while the steel workers received an increase in wages of 21 cents an hour after a 55-day nation-wide strike.

(According to our figures, the steel companies made about $400 million on the deal while the workers received mere peanuts. Obviously, the price increase will be passed onto the workers which in the final analysis amounts to a decrease in wages rather than an increase. It's a good business for management - union leaders to sellout the rank and file, isn't it?)

The RESEARCH BULLETIN

NEWS ITEMS OF SIGNIFICANCE QUOTED FROM THE NATION'S PRESS

An Example in 'Economizing'

Economy-minded congressmen stripped capitol architect David Lynn of his government limousine—then voted themselves the fattest tax deduction ever. Without a record vote House members approved a bill to let them deduct all living expenses in Washington — rent, food, baby-sitting, cocktail parties, maid service and entertainment. Rep. Gerald D. Ford, Jr., (R. Mich.), sponsoring the bill to take away Lynn's car, said it was time Congress set an example in economizing.

The House That Debt Built

The Institute of Life Insurance has just totaled up all the debts owed in this country — by individuals, businesses, and governments. It estimates the gross public and private debt at some $640 billion. This is not only 300 percent more than it was 12 years ago, but 40 percent more than it was seven years ago.

The big expansion since the war has been in private debt with gross borrowings of business and individuals rising from $155 billion in 1945 to an estimated $330 billion at the end of 1952. The volume of debt of the present size amounts to the equivalent of some $4000 for every person in the population.

Isn't Competition the Life Of Private Enterprise?

Since 1950, steel capacity in this country has risen 18 percent, with additional new plants being got ready, and aluminum capacity has gone up the fantastic figure of 70 percent, also with more to come. No wonder the Office of Defense Mobilization reports that many defense contractors no longer ask for the priority aid to which they are entitled in buying their supplies of steel, copper and aluminum. Meanwhile, British steel makers watch with concern as West German steel capacity — outstrips theirs, and their compatriot shipbuilders complain that competition from all over the world is forcing down the tonnage of orders on their books. Everywhere the ability to produce has caught up not only to the needs of peace at a high economic level, but also to the combined requirements of cold-war rearmament and hot-war expenditures in Korea and Indo-China.

Appliance Sales Continue to Sag

One hundred thirty-seven appliance dealers went out of business in first five months of this year compared with ninety-nine last year . . . mortality rate is rising steadily. Market for most appliances is close to saturation point . . . replacement demand is slow following recent record sales.

—(Pacific Finance, August 6, 1953)

Where's the Purchasing Power Coming From?

WASHINGTON, Aug. 11 (D.-J.) — National production of goods and services in the 2nd quarter climbed to a record annual rate of $372,000,000,000, the Commerce Department reported yesterday. This was $10,000,000,000 above the yearly pace in the preceding three months. It was a $24,000,000,000 increase over the 2nd quarter of last year.

The department said a substantial portion of increase in national output in the 2nd quarter was absorbed in business inventories. As of June 30, inventories held by manufacturing wholesale and retail firms were valued at $77,500,000,000 — some $4,300,000,000 above a year ago and highest in history.

Less Take Home Pay More Repossessions

NEW YORK — Industry, in an effort to hold down production costs, is making a continuing endeavor to reduce "overtime." Where successful, this means thinner pay envelopes and thus may lead to increased repossessions of merchandise purchased on the instalment plan, says Henry H. Heimann, executive vice-president of the National Association of Credit Men.

Considerable instalment buying is based on a weekly wage envelope that includes overtime wages, Mr. Heimann said in his monthly business review. Today industry is being forced by high production costs to keep this overtime down. The higher costs are due to growing competition in a "more or less buyers' market," Mr. Heimann explained.

Union leaders will try to get an increase in hourly rates to offset this overtime pay loss, the credit official suggested, but the campaign will take considerable time and may not be wholly successful. In the meantime, defaults and repossessions will rise.

The 'Curse' of Abundance

Bids for new bins for about 50,000,000 bushels of additional storage capacity for grains have been requested of 75 bin manufacturers by the Agriculture Department.

Currently the Commodity Credit Corporation owns about 545 million bushels of storage capacity, half of which is already filled with corn taken over under previous price support operations. The additional space is expected to take care of storage requirements for corn, wheat and other grains from the 1952 crop which are now stored on farms under price support loans.

Sabotaged In Nick of Time

The Air Force announced cancellation of contracts for seven of the 17 heavy hydraulic presses slated for production over the next two years.

The press program, always a controversial item in the defense budget, is supposed to revolutionize airplane building once it gets into full swing. The 10 gigantic presses still under contract will be larger than any press of their kind in the U. S.

Presses now operating turn out only a small fraction of all airframe sections needed for military aircraft. The rest of these structural shapes are made by conventional methods—fitted together laboriously from small metal pieces which in turn are carved out of metal blocks.

The Defense Department's high command said that the new huge presses could turn out airframe members much faster than can now be done, but it doubts that the Air Force could use all 17 presses if it had them. As one top official puts it: *"There's enough capacity in the 17 presses to build all the airplanes for this world and Mars, too, but we just don't know how to use them yet."*

In the Midst of Abundance

VENTURA, July 28 — O. A. Rounsavill, father of five and a $60-a-week laborer who resides in a local housing project, today offered to trade one of his eyes for a home and small acreage.

"If someone would give me enough money to clean up my debts and buy a home with a little land around it they could have their choice of my eyes," the 32-year-old Civil Service worker said.

He is employed at the Port Hueneme Naval Base.

Rounsavill and his English war bride and five children live in a modest home in a city-operated housing project here. "I just cannot get ahead this way," he said.

Selling his eye, he believes, is the best way out of his economic dilemma. "My eyes are real good," the ex-GI claimed.

"Ain't What She Used to Be"

WASHINGTON, (NANA) — The horse is becoming a "vanishing American" today in the nation's towns and cities — and even on the farm, where a horse once was indispensable. The latest annual edition of the agricultural statistics of the United States shows that the number of horses on farms dropped to a record low of 4,370,000 last year.

To measure the extent of the drop, the figure must be compared with 40 years ago, when there was a minimum of 21,000,000 horses on the nation's farms at all times.

If this trend continues, the farm horse — and his companion, the mule — soon may be relegated to the zoo as some strange animals for children to see, say agricultural officials.

The old gray mare, too, ain't what she used to be in this country. The count shows that only 110,000 colts were foaled last year — the lowest total in U. S. history.

As for mules, numerically they are in worse shape than horses. Farm mules dropped from 5,824,000 in 1921 to 1,923,000 last year — another low.

Why are horses and mules vanishing so fast from the American scene?

The answer is simple, say agricultural officials. Old dobbin and his companion, the mule, gradually are being replaced on the farm by the tractor and the truck.

Repercussions of Abundance Under a Price System

CHICAGO — Production curtailments and employee layoffs are underway at 17 of 19 International Harvester Co. plants across the nation.

Layoffs of 6,500 employees in recent weeks have reduced total employment at all plants from a May 1 figure of 67,000 to about 60,000 including office workers. Another 2,800 employees are to be laid off by Labor Day at various plants, while production curtailments under consideration for motor truck plants will result in further layoffs of an as yet undetermined scope.

Hardest hit so far have been farm tractor and implement plants although the industrial power equipment plant at Milwaukee also has had substantial layoffs with more due.

CHARLESTON, W. Va. (AP) — Mine closings in a four-state area over a period of two and a half years have caused an annual payroll loss estimated by the Southern Coal Producers Association at $50 million.

The association said 115 mines have shut down since January 1, 1951, in its membership area — West Virginia, Kentucky, Tennessee and Virginia.

The closed mines were listed as having formerly employed 15,399 men and having produced 15 million tons of bituminous coal in their last year of operation.

Signs of the Times

PITTSBURGH — One large steel producer, without any public announcement, has just closed down two electric furnaces which had been making alloy steel for hundreds of corporate customers. Asked why, a mill executive explains it's "to bring productive facilities in line with incoming orders."

At another big company, cancellations are swinging upward. A market analyst for the concern terms the cancellations "significant," reflecting production cutbacks by military suppliers, farm equipment manufacturers, container factories, and even the auto industry which continues to be the main prop under the booming steel trade.

A third producer, who until a week or two ago had foreseen full operations for the entire year, now admits the probability of a decline in its steel output in December or "possibly" in November.

The sales vice-president of a large producer describes the change in the market as "drastic," much of it coming, he said, during the past month.

Why Would They Want War?

BONN, Germany, August 16 (AP) — More than 15,000,000 Europeans lost their homes during and after World War II, the statistical office of the Evangelical Church reported today. It said that 10,000,000 homeless now live in West Germany and 3,800,000 in Communist East Germany. Others are scattered throughout other European countries.

'Sad Song' Has No Happy Ending

DETROIT — Don't sing the blues when talking with reporters.

This is the fatherly advice of the National Automobile Dealers Association to its members in its most recent "news-letter."

It said that right after a story appeared in a newspaper "a number of buyers cancelled their orders for new and used cars."

Why? "Because if the story was correct, they expected dealers to give big discounts," said the N.A.D.A.

The association conceded the story came mainly from dealers.

So it concluded: "If a newspaper reporter calls you, take care that you don't feed him a lot of depression-making fuel. It might even be your theory, but if you advance it enough it might produce the 'recession' that can and will really hurt. Just remember, sad songs are contagious."

But the N.A.D.A. itself says with the same breath, "we're not saying that a decline can't come."

Greatly Exaggerated

Los Angeles Daily News, July 22 (Peter Edson, Washington) — Confidential reports reaching Washington now indicate that many stories about uprisings against Communist authorities in Russian satellite countries have been greatly exaggerated.

The stories of strikes and riots in East Germany are fully confirmed by authoritative eyewitness accounts and admissions of the Communist-controlled East German newspapers themselves.

Reports from the satellite countries, however, are mostly attributed to refugees fleeing from rumored disturbances elsewhere.

Checks on some of the reported riots in Poland and Czechoslovakia have failed to produce confirmation. The United States has diplomatic missions in both these countries with direct access to some sources of information. They have verified firsthand that there was much grumbling over recent Czech currency revaluation and new price controls. But there have been no revolts against the Crech government yet. Reports of battles against Soviet tanks in Poland have likewise not been confirmed.

The government shake-up and reforms in Hungary were officially announced by American observers there. The United States has no missions in Bulgaria and Albania. But there have been no reports of serious trouble there, nor in Romania, where there is a U. S. diplomatic mission.

Washington officials see considerable danger in creating too much false confidence in this country that the Communist empire is breaking up.

ILLUSTRATION CREDITS

Front Cover — **Authenticated News**

Pages 11 and 14 — **Steelways, published by Iron and Steel Institute**

Page 12 — **Great Western Sugar Co.**

Page 13 — **(Upper right) California Farmer (Lower half) Univ. of Calif., College of Agriculture**

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TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America or elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $6.00 which are paid by the member to his local section. Members wear the chromium and vermillion insignia of Technocracy — the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers, and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every State and in every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher, or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

The TECHNOCRAT

Offering to the American public a medium by which it can learn the facts regarding the transition period in which we are moving toward a New America of technological abundance.

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A NEW STATESMANSHIP FOR NORTH AMERICA

The political statesmanship of foreign countries will sell out for a price, but on this Continent it will sell out any cause for nothing. This double-crossing of the people is more evident here than anywhere else in the world, for the people of the United States and Canada have been psychologized by the politicians and have been made so accustomed to political lousiness that they have difficulty in recognizing anything else.

For thousands of years the human race has been taught that all decisions were predicated on the just and ethical in human conduct, but the failure of democratic decision is as evident as the failure of communist and fascist decision. Modern technology demands a more accurate methodology. Technocracy has stated the mechanics of the social order in quantitive, physical terms. A new statesmanship is in the making.

—Howard Scott

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The TECHNOCRAT

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Sec. 53

IN THIS ISSUE:

- SOCIAL INSURANCE FOR ALL
- Democratic Ideology vs. Economic Necessity
- Machines Are Getting Smarter Every Day
- Critical Comments
- Science in the News
- Research Bulletin

NEWS MAGAZINE

Whole No. 168

25 CENTS

The TECHNOCRAT

DECEMBER, 1953

Editorial

Abundance Plagues the Politicians

The Curse of Abundance

It is more important to save the farmers in their present crisis of surplus production, declining markets and falling income than to carry out campaign promises to reduce the Government's role in agriculture, asserts John H. Davis, president of the Commodity Credit Corporation.

That is undoubtedly a correct appraisal of the farmer's current position from the point of view of a political officeholder. But it must be added that if a "crisis" confronts the farmer now, it is the result of decades of governmental effort to save the farmer from one crisis after another, with no rational consideration of the secondary consequences of the rescue methods adopted.

. . . The wheat farmers want high level price support to continue and the farm bloc in Washington wants to keep them free to plant an acreage which, under average weather conditions, would increase the "surplus production" which Mr. Davis recognizes as a big factor in the farm crisis. Any idea that the farmer should be held responsible market-wise for his land management is unpopular.

Yet that idea is occasionally brought up. Before the Senate Committee on Agriculture the other day F. K. Wooley, counsel to the American Farm Bureau Federation, said: "Continued stimulation of production of commodities for which we do not have effective market demand threatens to undermine the very economic foundation of the United States!" He recommended 60 million acres for next year's wheat and that much for only one year.

And on the other hand, Senator Young, Republican of North Dakota, told the committee that if the wheat farmers should reject marketing quotas for 1954 (thus knocking out price-supporting crop loans at 90 percent of parity) the result would be an "economic collapse in the Middle West" which could bring on a nationwide depression. You cannot help wondering why officers of the most important of the farmer organizations and the farmer's friends in Congress don't have lunch together some time.

There was a time when abundant production from the soil, even enough to spare for the hungry beyond the seas, was looked upon as a blessing. But that was before our farmers, along with most of the rest of us, became obsessed with the dominating importance of the price tag.

—The Wall Street Journal, July 1, 1953.

Our politicians who are attempting to control agriculture are being plagued with an ever-growing stockpile of wheat, corn and cotton as well as other commodities. These three are big high-profit crops; and the idea of reducing acreage on all three in one year is bringing the farmer face to face with new situations.

Not only the farmers, but the merchants, dealers, and every one that lives in rural communities in our country are becoming worried about the effect this will have on employment and business.

The farmers and cattlemen are being cajoled by the politicians that they must get on firm ground and not be lured "down the road that leads to economic bankruptcy"; that they should realize the population is increasing at a rate between 2 and 3 million a year, and that by 1975 the U. S. will have a population of about 200 million. And to meet the food requirements of 40 million more people will make expansion in farm output necessary as well as profitable.

Campaign promises and rhetorical references to beautiful distant vistas (1975) will not scare away the Big Bad Wolf (present crisis). It is the nasty problem right now — Abundance — that the politicians are up against; and for which an answer must be found if they are to remain in power. But political and business manipulations or machinations of the past cannot solve today's problems because America's destiny is in the present and future.

America's citizens are not "toiling masses," but are users of technological equipment (providing they have purchasing power). Therefore the need is for a solution that is in accord with the technological age in which we live. It must be predicated on the physical laws by which we operate and not on wishful thinking; on today's America, not yesterday's folkways. Technocracy has the blueprint of designed direction that is in accord with the need of today's America. Technocracy aims to reach enough Americans to save our country from chaos!

December, 1953

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Whole No. 168

Why Not? . . .

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Social Insurance for All

THE general welfare of the people of any area is a responsibility of the government of that area, even though it may not be, and usually isn't, a desire on the part of those individuals who make up the governing body. The more complex and interdependent the society, the more surely and more deeply this principle applies. No government administration in the United States today, for instance, would dare ignore the basic needs of the people, no matter how reactionary and Cadillac-minded the central politics may be.

In all past ages, and in most of the world today, the great bulk of the people were close to the source of material supplies, mainly on the soil which produced their food and the materials for clothing and shelters. The per capita production was so low, when human toil and hand tools were the dominant factors in production, that only a very small percentage of the people could be maintained in parasitic and saprophytic positions; hence, only a few were removed from the source of supply. Disasters and social upheavals were usually local in their effects and affected only a small part of the population. Most of the people lived poorly, worked hard, and continued in the traditional patterns of life, regardless of events around them. Their governments took little part in their economic affairs, except to tax them for about all they could bear and to uphold the predatory rights of the merchants and landlords. Under those conditions, the rulers could get by with the minimum of attention to the welfare of the people.

Although the personnel of the various political governments tend to live on a luxurious level compared to that of the general subjects, the people do expect some sort of protection and welfare in return for what it costs them to have a government. This expectation has not always been fulfilled and at times it reached a very low level, for example, during the Dark Ages of Europe. In more recent times, the people have come to expect more and more from their government. The politicians naturally do not like this, since they have the traditionally practiced taking, not giving. They refer contemptuously to the popular expectation of government welfare guarantees as 'paternalism' or 'creeping socialism'—then they assemble and pass legislation raising their own salaries and benefits.

The idea of the people in general deriving any obvious benefits from their government irks the reactionaries no end. Perhaps the reason that the reactionaries hated Franklin D. Roosevelt so much and loved Herbert Hoover was because F. D. R. sought to save the private enterprise system by letting small dribbles of the public funds fall into the hands of the consumers instead of dumping them as large sums directly into the pockets of the big predators, like H. Hoover did. Now the reactionaries are in the saddle, with Dwight D. Eisenhower acting as the front man. While they would like to squeeze the public with taxation and push funds collected out to their own boys in big chunks, they find that the public is organized into hundreds of special interest groups, each pushing for 'creeping socialism' in the form of government subsidies to overtake their own respective group. So, if it isn't the wheat farmer, the cotton farmer, or the cattle raisers, it is the labor unions, the retail merchants, the big industrialists, or the landlords who are lobbying for government paternalism.

Politicians Fright

So long as the public is divided up into numerous special interest groups, it can be dealt with piecemeal between rounds of golf, so to speak. The great fear of the politicians is that they cannot wring enough monetary wealth from the people in the form of taxes and from the government credit in the form of new debt to bribe all of the pressure groups to be quiet. Should overproduction or continued truce remove the excuses for putting more squeeze on the taxpayer and on the government credit, an economic 'recession' may set in, with the result that the public will begin to realize that it is no longer made up of a lot of separate special interest groups, but that a common distress makes all people one group—consumers. When people realize they are all consumers — one group — and decide to organize for the general welfare of the consumers, the politicians will know that their racket is washed up and that they will be on the consumers' list of public enemies. They will quickly grab up whatever public funds they can get their hands on and abscond with them to some warm but remote hideout.

The reactionaries hate and fear general socialism, although they have no aversion to specialized socialism applied in their own behalf. But the public loves socialism; for, through it, the people see a chance of getting 'something for nothing.' Of course, if the government can collect enough funds through

a socialistic taxing system to bribe the individual citizen — directly or indirectly — with sufficient socialized handouts to make it worth his while, said citizen will loudly shout his hatred for socialism. But just try cutting off his socialized subsidy and he will come screaming to the government for more socialism in the form of special handouts of one kind or another. In this, the big businessman, the small businessman, the landlords, and the laborers are no different from the cattlemen, the farmers, the miners, or the people on direct relief.

Predatory Socialism

An especially bald-faced form of socialism is insurance. But you hear of no one objecting to insurance-socialism so long as a stream of the insurance money passes through his hands and he can hold out some of it for himself. Thus, the executives of insurance companies may disclaim socialism in their speeches and in their printed releases, but they are 100 percent for socialism as it applies to insurance. The only social insurance they despise is that which does not pass through their hands, either coming in or going out. They are enthusiastically in favor of insurance which demands that the individual citizen buy policies and pay regular premiums and that the beneficiaries receive specific payments. That gives them a chance to handle the money a maximum number of times. But, if you want to see the insurance men reach the boiling point in the shortest length of time, just mention general insurance, covered by the general funds of the government, and uniform for the whole population. Verily, hell hath no fury like a chiseler whose chiseling privileges are in danger of being abrogated.

The form of socialism that the sticky finger boys and girls like best of all is organized charity. By means of organized charity drives, the people in general are inveigled, often coerced, to contribute toward the relief of some vaguely defined unfortunates in their society. The methods of accounting are very sloppy, with the result that, in most cases, only a small fraction of the collected funds ever reach those who are supposed to benefit from them. The cynic's remark that it takes a dollar to send a charity dime to its intended destination often proves, on investigation, to be sheer optimism. We can still hear the echoes of the howls that went up when the government was compelled, by the magnitude of the demand, to take over the relief problem in 1933 and make direct payments to the economic unfortunates by way of the CCC, the WPA, and the AAA. And some of the loudest protests came from alleged Christian church welfare organizations.

Perhaps the most viciously predatory form of socialism is corporate enterprise. In the case of the corporation, a more-or-less selected fraction of the public is promoted into socializing its funds — through stock and bond purchases — in a predatory enterprise; then a percentage of the 'take' is divided up with the stock and bond holders in the form of dividends and interest. We contend, however, that this is a complicated and inefficient method of socializing predation. We might suggest, as an improvement, that the government organize an extensive force of professional thieves, robbers, pilferers, and looters to operate throughout the country. We further suggest that the proceeds from this enterprise, minus a commission for services rendered, be divided up equally among all the citizens of the country. In that case, the beneficiaries would all be in favor of socialized thievery, and the only dissenters would be that fraction of the populace who happened to be the victims in any one year. But, in a democracy, majority opinion is supposed to rule, and this setup would be democracy in action at its finest.

Some moralist might object to our suggestion with the complaint that 'it isn't fair to those who are victimized.' Well, it is certainly fair to the beneficiaries, and they are the majority. If differs from business and most other 'legitimate' predations in that it would victimize a few for the benefit of all, while the latter victimize the majority for the welfare of a few. No enterprise under the Price System can distribute benefits without first collecting the wherewithal (plus 'collection and administrative costs') from others. We contend that our suggestion is no different in principle; it is merely more forthright in its method, and it doesn't complicate itself with hypocritical phraseology and beating around the bush, trying to pretend that it is something else. Because of this fact, we predict that it will be roundly opposed by every financial institution, insurance company, chamber of commerce, ecclesiastical institution, and other socialist establishment which is engaged in the business of taking from some to give to others.

Symbols in the Mind

The reactionaries are wholeheartedly in favor of that system which will leach wealth from the society, pass it through a series of hands, then distribute the residue to a selected minority. They are just as wholehearted in their opposition to any system that would take the wealth of the society and distribute it to the people in general with a minimum of leakage along the way. The former is affectionately eulogized as a 'free' system while the latter is contemptuously and angrily condemned as a 'communistic' system. The former is also labeled 'Christian,' which implies that it is 'good,' while the latter is labeled 'atheistic,' which implies that it is 'bad.' None of these terms have any direct meaning, of course; they are just emotion-symbols used to express the subjective sympathies and hatreds of the users.

When our Leaders speak of rugged individualism, they mean nothing of the sort. That term is a false front for a particularly vicious form of predatory socialism, under which some individual with aggressive and acquisitive tendencies is permitted to collectivize a group of people — through seduction, bribery, intimidation, or deceit — for the purpose of

looting other groups and individuals or the public at large. This has been the traditional and praiseworthy way of getting ahead in America. It is the type of socialism that was employed to concentrate most of the great family and corporate fortunes of this Continent.

There has been no such thing as rugged individualism among human beings within historical times, with the rare exception of the individual who forsook society and became a 'wild man.' Ever since two or more human beings decided to get together and operate under a single economy, we have had socialism in one form or another and have been drifting further and further away from private individualism. The conflict is no longer between socialism and individualism as a way of life, but it is between competing forms of socialism. The Number One conflict in the world today is between the Black Fascism of Rome and the Red Communism of Moscow, partly on the basis of ideological differences, but even more on the basis of who is to have priority in dominating and looting the world.

North American Concepts

Technocracy has no use for either Black Fascism or Red Communism as a way of life for this Continent. Neither of them contain the concepts or the operating design for developing North America to its highest social potential. Technocracy has developed a concept that is fitted to this Continent and to the advent of modern technology; and, with the program of Technocracy the society of this Area could develop to its optimum state, with the highest standard of living for its citizens, with the least effort on their part, and providing the maximum of security from disaster, strife, and economic misfortune.

For the first time in the history of any Area, Technocracy will institute a genuine social security for all residents of the Continent without taking from some to give to others. In the Technate, there will be no taxes, no charity contributions, no insurance premiums, no social security deductions. In Technocracy, all of one's income will be available for the purchase of goods and services; none of it will be withheld or lifted for insurance purposes or welfare handouts.

An individual without economic security is a hazard to the society. He may violate the sanctity of property and of persons in a desperate effort to acquire the economic means of survival or well being. Aside from any moral considerations, it would be far simpler and safer for the society to guarantee economic security to all, given the resources to do so. North America has the resources and other means of guaranteeing a very high standard of living to all its inhabitants; so the lack of such a guarantee is merely a matter of poor statesmanship, not a matter of resource limitations. When economic security is provided for all from birth until death, the individual

(Continued on Page 24)

Democratic Ideology vs. Economic Necessity

The human traffic in juveniles in Japan — on which Japanese newspapers generally and bluntly pin the label of "slave trade" has again attracted public attention following the publication of the results of a nation-wide survey conducted by the Japanese Labour Ministry. This shows that between July, 1951 and June, 1952, there occurred nearly fifteen hundred known cases of young boys and girls being illegally sold by parents through unauthorized "employment agents" in return for cash payments that averaged between £10 and £15 for a year's work, but in some instances amounted to only the equivalent of 10s.

The sinister purpose, and real tragedy, of this "trade" in young lives is shown by the fact that 89 percent of all recorded cases concerned young girls. The overwhelming majority of them were discovered working as "waitresses" and barmaids in small and often dubious establishments (many, according to the Tokio police investigations, being obliged to sell themselves to customers) and, the largest single category, as avowed prostitutes

. . . Unhappily for the children in Japan, laws, however excellent in intention, are only too apt to be one thing, and habit and economic pressures another. The Labour Ministry survey showed that among the causes which led parents to "sell" children poverty topped the list with 37.1 percent. (It was, however, noted that some of the disclosed cases concerned owners of factories and wine shops who sold their daughters in order to secure money with which to pay heavy taxes!)

. . . Typical "case histories" supplied to me by Miss Taki Fujita, the chief of the Women's and Children's Bureau of the Ministry of Labour, set the domestic pattern responsible for the stubborn persistence of the traffic.

. . . An additional complication in ending the traffic, according to Miss Fujita, is that some of the children, when questioned, do not want to return to homes where the parents cannot feed them, while the parents themselves often persist in taking the view that the children are happier in the "jobs" assigned them.

Japanese Labour Ministry officials conclude that the best hope of ever halting the traffic in juvenile lives is to improve social and economic conditions — which, with the average Japanese farming family existing on a margin so slim that £10 often means all the difference between security and catastrophe, would seem to be a faint hope indeed. But history does move on, and at least it can be said that in Japan today, for the first time, a genuine attempt is being made to grapple with this age-old problem.

—The Manchester Guardian

Machines Are Getting Smarter Every Day

The industrial revolution is entering a new phase. The emergence of automatic control on the production line is freeing more and more men from inefficient hand labor. Machines, too, are being freed to work with the speed and safety necessary to satisfy human needs.

IN captivity in the Bell Laboratories in New Jersey is a tiny electronic mouse that stands on the threshold of a new age. The "mouse" — a twin-inch bar magnet with copper whiskers — can find its way through a maze by trial and error. When the mouse is returned to its starting place by its creator, Dr. Claude Shannon, it can then find its way through the maze without a single false move.

A man-made mouse that profits from experience might be by itself merely a curiosity. But it dramatizes one of the many startling new automatic control techniques that are causing a revolution in American factories and industrial plants. Today, man is beginning to use these techniques to create a kind of world that taxes his capacity for wonder. Almost every day the newspapers report a new development embodying some aspect of these techniques.

A guided missile, for example, hurtling through space in a strong wind, radios its complex navigation problems to a ground-based computer or "brain" which flashes back the answers as instructions to the robot pilot. The electronic brain thinks fast enough to perform 50 calculations while the missile travels 10 feet — and the missile is traveling at 2,400 feet per second.

When you dial a phone number, a vast switching system, guided by an electronic brain, registers and remembers the phone number, selects the best of several alternate paths through millions of other phone circuits, rings your party's bell, clears the line when the receiver is picked up, times the call, adds up the charges and puts it on your bill.

Each of these is an example of automatic control which, applied to industrial machines, is called "automation." Some people perhaps conceive of automation as typical production line procedure where the product is automatically carried from one machine to the next. Or perhaps they conceive of it as a sort of broken-phonograph-record type of mechanical operation where a process is carried on over and over again no matter what the result.

Reprinted from STEELWAYS, June, 1953, by John Kord Lagemann.

But modern control techniques go much further. Through such "sense organs" as photoelectric cells, microphones, thermocouples and condensers, the control system "perceives" how well its instructions are being carried out and modifies them accordingly.

One good example of such control is embodied in the household thermostat. When the thermostat "perceives" that the room is getting cold, it sends a message to the burner control valve, causing the valve to be opened. When the room is warm enough it sends a message that closes the valve.

The thermostat itself is not a new idea and other examples of automatic control, such as James Watt's flyball governor, are even older. But much of the impetus toward large scale automatic control came as recently as World War II. At that time scientists and engineers from many fields worked together for the first time to produce new weapons and equipment.

They found that human operators simply could not handle all the data that had to be interpreted at lightning speeds in order to hit a plane, say, with an anti-aircraft gun.

Obviously, automatic control was the only possible solution. When it proved successful in complicated war machinery, everyone began to consider its industrial applications. Today throughout industry thousands of "system engineers" are at work on automation problems. They include mathematicians, scientists, engineers and administrators about equally divided among private companies, government agencies and university research centers. Many of them believe they are now ready to free large portions of our production machinery to operate at speeds far beyond the reaction time of the human nervous system.

In large segments of some industries, the automatic factory is virtually here. Television and radio sub-assemblies are now being made automatically, as are light bulbs, glassware, chocolate and beer.

At a Canton, Ohio steel plant where the finest grades of steel are made, I watched a melter control an electric furnace. Minute fluctuations in temperature at several points in the furnace, including the temperature of the molten metal itself, were registered on the dials of a control board almost 50 feet away.

The data transmitted to the automatic recording apparatus enabled the melter or his assistant to control the power in the blinding white arc between the electrodes and the metal.

Only a few years ago the fastest thermocouples, requiring a second to respond, measured temperatures with an accuracy of one part per hundred. The instruments of today, registering heat fluctuations at the rate of thousands per second, have an accuracy of one part in thousands. The improved control means better steels.

In the continuous hot sheet mills electronic eyes and feelers keep the rapidly moving strip of steel in the proper track. At the same time X-ray gauges give a continuous record of the thickness, which enables the roller to make promptly any correction necessary to keep the mill at the right adjustment.

Similarly, a cold reducing mill can, in the space of less than five minutes, unwind 15 tons of coiled sheet steel, reduce the thickness to a uniform .01 inch and recoil the finished product at the rate of 3,700 feet per minute.

Remarkable as such developments are, automation is still only in the exploratory stage. It is necessarily dependent on the apparatus that serves as the nervous system and brain of control systems. To get an idea of what is in store for industry, you must first understand the IQ and general capabilities of today's electronic computer.

Computers are already at work in business — many in capacities other than that of production line overseer. Some have already dug into the mountains of paper work that face banks, insurance companies, chain stores and accounting departments.

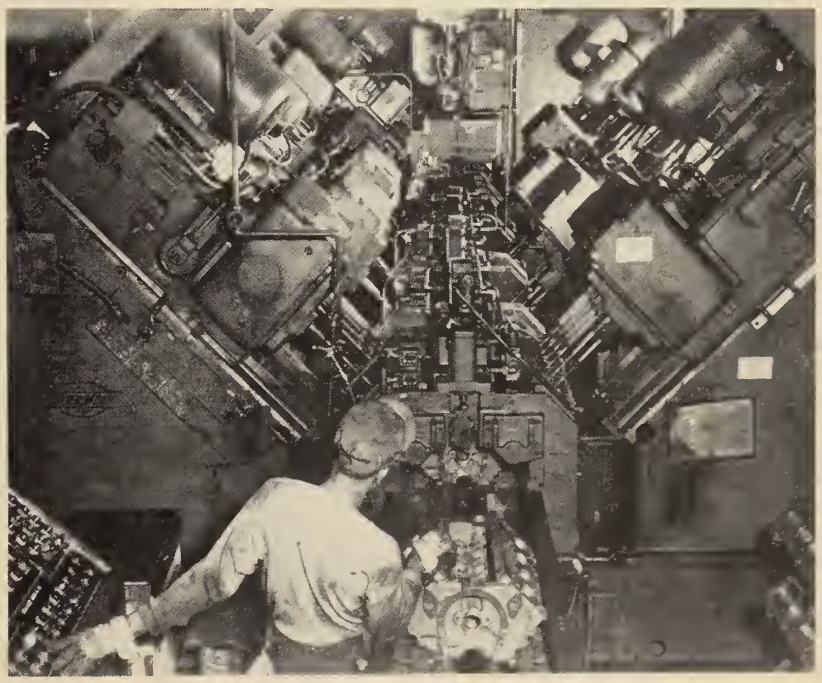
American Airlines has replaced its once cumbersome reservation recording system in New York with a "Reservisor" which, at the pressure of a few buttons, reports how many seats are available on any flight to any particular destination. It also subtracts the newly reserved seats from the total and puts them back on the list if the reservations are canceled.

Today most computers used to control industrial and military machines operate on the analogue principle. The control apparatus mimics the thing it controls. In analogue control of a guided missile, for example, a tiny "replica" of a missile in a control station simulates the flight of an actual missile out in space. Or a photoelectric scanner follows the lines of a scale drawing and guides a milling machine in making the part the drawing represents.

In every system of analogue control, the bigger and more complex the problem, the bigger and more complex must be the control mechanism that solves it. Most system engineers think that a maximum size has already been reached by such giant analogue computers as the "Typhoon" which RCA built for the Navy.

A new and entirely different concept of machine tool control is embodied in the "digitron." Built at M.I.T.'s Servo-Mechanisms Laboratory, it works from mathematical formulae instead of an analogue model or blueprint. The dimensions and contour of any desired machine part are reduced to mathematical equations, which are coded on a length of punched tape. The digitron translates these equa-

Studebaker's 900-foot automatic engine block lines has a machine whose 189 spindles perform automatic drilling, reaming and tapping operations.



This machine tests crankshafts, detects inbalance, remembers it and corrects it.

tions into electrical signals which guide the machine tool in making the part.

This means that a few very flexible automatic machines may be able to produce a wide variety of parts by using precut tape — and do this as cheaply as a large shop.

Where is all this leading us? "Whenever logical processes of thought are employed," according to Dr. Vannevar Bush, "that is, whenever thought for a time runs along an accepted groove — there is an opportunity for the machine."

New control devices are being introduced in steel, automobile manufacture and other heavy industries. Any kind of work that has been programmed or broken down to a routine series of small decisions — as it has in most mass production industries — can be scheduled for machine control.

What does this mean for employment? Experience has shown that instead of creating unemployment, automation tends to create jobs. The big industrial change that has taken place in the United States in the past 25 years has brought into the employment field over 13 million people.[1]

The experience of the steel industry with automatic devices for increasing production bears this out.

The continuous rolling mill, for example, brought with it more and better steel. Though it eliminated almost all of the manual jobs of the old hand mill, it created new jobs in the steel industry because there was an increased demand for the improved steel made by the mill. Other industries that expanded because of the supply of better steel also hired more men. Then, too, the continuous rolling mill meant

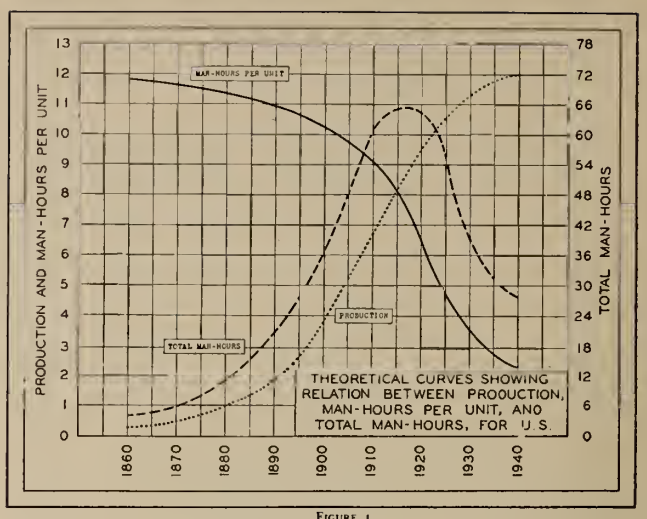

PRODUCTION AND MAN-HOURS PER UNIT
TOTAL MAN-HOURS
MAN-HOURS PER UNIT
PRODUCTION
TOTAL MAN-HOURS
THEORETICAL CURVES SHOWING RELATION BETWEEN PRODUCTION, MAN-HOURS PER UNIT, AND TOTAL MAN-HOURS, FOR U.S.
0 1 2 3 4 5 6 7 8 9 10 11 12 13
0 6 12 18 24 30 36 42 48 54 60 66 72 78
1860 1870 1880 1890 1900 1910 1920 1930 1940

FIGURE 1

improved working conditions for the men who made sheet steel.

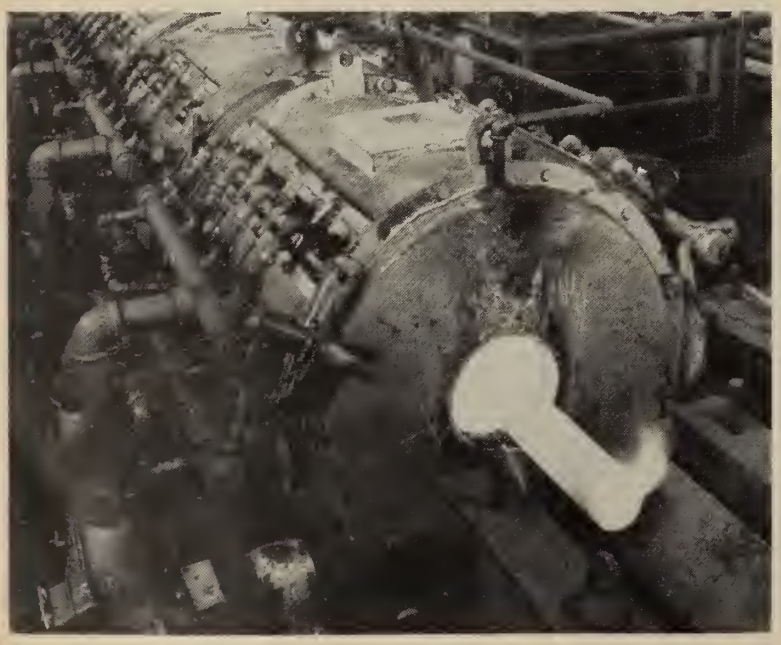
It is true that automation will change the character of our labor force, replacing unskilled labor with skilled. But the change will not be abrupt, and it will benefit the whole population.

In the past century, the American worker's output per man hour increased six fold. But our nation, as George Fielding Eliot pointed out in the April issue of Steelways, is threatened by a shortage of workers, and the work force includes a steadily rising proportion of defense workers and the military. If we're going to maintain our present rate of advance in living standards for our population, the output per worker is going to have to go even higher.

This is a tremendous challenge. It is a challenge that will be met only by freeing ourselves from the brake of manual control. When the machine on the production line of the future can set its own pace of operation, the productivity of industry may be governed only by human need.

[1]*The fallacious conclusion that machines create jobs is refuted by the Twentieth Century Fund's findings that work performed by human labor and work animals has decreased from 69 percent in 1850 to less than 3 percent today. See Chart, figure 1.*

The radiation type pyrometer sighted on the hot tube, controls the flow of furnace fuel so the temperature will be right for further rolling.



Does Work of Several Men

A new spike puller power driven machine has been designed and built by the Nordberg Manufacturing Company which will pull from 30 to 45 spikes per minute, a production rate several times better and faster than that attainable by gangs equipped with manual claw bars. Moreover, the spike puller can handle spikes located on bridges and other inaccessible locations. The lowered accident rate and lessened exhausting labor resulting from its use has contributed greatly to time saving and increased efficiency.

Political America

Letter to An Editor

With reference to your editorial entitled "Behind in His Readin'," in which you attack two great Americans, Edgar Hoover and Senator McCarthy; I wish to take particular exception to your statement that Mr. Hoover and Mr. McCarthy "mutually suffered the frustration of some official indifference to charges of Communism in government," therefore, "they were drawn sympathetically together by the common experience."

This slanderous attack on two of our most outstanding public servants would make good copy for the Communist Daily worker. Perhaps the editor is a little behind in his reading, too. For example, Mr. Editor, have you ever read about such persons as Owen Lattimore, now under indictment for perjury, or John Stewart Service, who was ousted from the state department for disloyal activities, or John Carter Vincent, a favorite of Mr. Acheson, also dismissed by the state department for his connections with the Communists? Then there was Esther Brunauer, also dropped from government service for the same reason. There are many others. All were apprehended through the effectiveness of what the Russia-firsters call "McCarthyism."

Such slanted reporting of the international news, Washington hearings, etc., together with your equally slanted editorials does not go unnoticed by thousands of good Americans who read your paper.

In Reply to a Letter on McCarthyism

McCarthyism's appeal to many Americans is well illustrated in letters we receive from readers who challenge this newspaper's motives in trying to fit the facts into the record of Senator Joseph R. McCarthy.

A letter published on the page opposite, commenting on a recent Denver Post editorial, demonstrates the effect of McCarthy's scattergun technique — hurling a charge which is possibly true or entirely untrue and then slamming accusations of Communism or what-all at another victim when the shakiness of the first charge becomes apparent. It is a muddying of the waters with a vigor that few American politicians have been able to attain. The confused reader is bound to have some of the falseness of McCarthy's attacks stick in his mind as truth.

The basic threat of McCarthyism is the climate of suspicion it creates. And that, in this jittery age, imperils the accused's right to defend himself by due process of law before guilt is assumed. The charge convicts before the defense can be brought to bear.

In the letter on the page opposite the writer appears to be well acquainted with charges against certain individuals, and bases his conclusion on what McCarthy said, not what McCarthy proved. He submits that Owen Lattimore is now under indictment for perjury, that John Stewart Service was fired from the state department for disloyal activities, that John Carter Vincent was fired from the state department for his connection with Communists, that Esther Brunauer was fired from the state department for the same reason. "All were apprehended," he writes, "through the effectiveness of what the Russia-firsters call 'McCarthyism'."

Our letter writer is correct in stating that these people, and many more, came into contact with McCarthyism. But he has not followed the record of what happened after McCarthyism made its initial impact on their careers in government. The record shows this:

McCarthy charged that Owen Lattimore was the "top espionage agent" of Russia in this country. The proof? The Tyding senate subcommittee investigated the matter and found that there is "no evidence to support the charge." Later a federal grand jury indicted Lattimore on seven counts of perjury in connection with testimony he gave on events which took place from fifteen to twenty years before the time of his testimony. A Republican federal judge threw out four of the seven counts against Lattimore, including the basic one that he had lied about his sympathies in behalf of Communist interests. And the issue will not be decided in court until late this fall. Owen Lattimore has not been convicted of anything. Whether or not he is guilty of perjury on the four remaining counts will be determined by due process of law in federal district court. To prejudge him is not justice but McCarthyism.

McCarthy charged that John Stewart Service had sinister Communist affiliations. After being cleared by a federal grand jury by a vote of 20 to 0 in the Amerasia case, he was then cleared by a senate foreign relations subcommittee and the state department loyalty board after six separate investigations. Service was ordered dismissed by President Truman's loyalty board on September 13, 1951, after it ruled there was reasonable doubt about his loyalty. Service then brought suit in a complaint which charged that he was deprived of due process of law in defending himself. This suit is pending in federal district court.

McCarthy charged that John Carter Vincent was a "Soviet espionage agent." Our letter writer

maintains Vincent was dismissed from the state department for his Communist affiliations. Actually, John Foster Dulles, Eisenhower's secretary of state, cleared Vincent of the charges referring adversely to his loyalty and then ordered Vincent's retirement from the state department after twenty-nine years duty on a pension of $8,100 a year.

McCarthy charged that Mrs. Esther Brunauer, state department liaison official to UNESCO, was associated with Communist front organizations. Mrs. Brunauer denied under oath that she was aligned in either membership or activities with Communist organizations. She submitted, among other testimonial letters, one from Dr. Milton Eisenhower, the president's brother, that she was in fact anti-Communist. The Senate subcommittee which investigated her case reported: "The conclusion is inescapable that there is no evidence Mrs. Brunauer is disloyal, a Communist sympathizer or a security risk." On April 10, 1951, Mrs. Brunauer was suspended by the state department and on June 16, 1952, she was fired. The reason given for her dismissal was that her husband, Dr. Stephen Brunauer, a navy employee, was removed from his job on the grounds that he was a security risk. Mrs. Brunauer, whether for lack of money or whatever, has not contested her dismissal in court. She has been cleared by every investigation made on her loyalty and she has never had recourse to due process of law to establish or deny her reliability as a patriotic citizen.

Those who single out a few to illustrate the validity of McCarthy's charges neglect to mention a host of others who have been victims of the senator's distortions: Harry S. Truman, Dean Acheson, George C. Marshall, Ambassador Charles E. Bohlen, former Senator Millard Tydings, former Senator Raymond Baldwin, former assistant secretary of defense Anna Rosenberg, former ambassador-at-large Phillip Jessup, former U. N. representative for the U. S., editor James Wechsler, former state department officer Gustave Duran, former director of the U. S. bureau of standards Dr. Edward U. Condon, former secretary of the navy Francis P. Matthews, and Dr. Nathan Marsh Pusey, newly elected president of Harvard. Nothing has ever been shown that these Americans were anything but innocent targets for McCarthyism's truth-blotting accusations.

It has not been and will not be the purpose of The Denver Post to attack or oppose an effective security program. Such a program is essential. Nor do we intend to defend the indefensible. But security must be attained within the framework of law. Each accused must in the American tradition be assumed innocent until proved guilty. McCarthyism's lingering taint of guilt on those it smears vitiates whatever later clearance the process of law may deliver. The charges of McCarthyism are more dramatic than refutation which follows. That, in large part, is why some write to the editor letters which scoff at attempts to bring McCarthy into perspective with the facts.

—Editorial, The Denver Post

Dare We Use the Hydrogen Bomb?

There has been much speculation in the U. S. press lately about Russia's possession of the hydrogen bomb.

A lot of thought seems to be going into assessment of defences against atomic attack, comparative capacity to produce this bomb, and so on.

But the real point is this. Neither side dares allow this bomb to be used. If it is used it will be the end of politicians, pigmy ideologies, militarists, and the whole bag of tricks we call civilization.

Let us look at this thing with cold rationality. Let us see first what comfort can be drawn from the possibility that we may be able to out-produce the Russians in making the hydrogen bomb.

Suppose at a given time we have a stock pile of 1000 and the Russians have only 100. Ten of these 100 bombs dropped in a line from Boston to Washington would blast out of existence a strip of U. S. territory 50 miles wide and 450 miles long containing a quarter of the U. S. population and a third of its wealth.

A disaster of that magnitude would wipe out all advantage of a larger atomic stockpile.

The Russians can contemplate exactly the same dish. One major attack by the U. S. strategic air force carrying atom bombs would put a period to the careers of every Bolshevik in Russia. Those whom we failed to destroy, the Russian people would.

The hydrogen bomb may have outlawed major wars.

Anyone who doesn't realize that yet had better go off somewhere and do a lot of thinking.

The leaders of the side that initiates atomic war will be destroyed to a man, probably by their own people. They will be hunted down and exterminated like mad animals.

That is a warning which should be placed on the desk of every so-called statesman on both sides of the Iron Curtain.

The atom bomb aside, the balance of power in the world is slowly shifting from the Russian side to

ours. We have contended that the time was never more favorable to stabilize relationships between the East and the West.

It is time for both sides to recognize they are playing with the total destruction of civilization in the present cold war.

All the achievements and failures of man are now dwarfed by this one fact — the discovery of atomic power.

And let's face it; neither of the ideologies engaged in the struggle for power on this earth today offer humankind anything approaching a really good way of life. Both have got plenty of holes in them. Both are mere makeshifts.

Marxism and capitalism, as they are popularly understood, are a hundred years out of date. They are not geared to the atomic age.

Our political systems are a miserable failure when measured up to the scientific age we have now entered.

We'd better realize it.

We'd better do something about it.

Editorial, The Vancouver Daily
Province, Vancouver, B. C.

Allowing for certain exaggerations arising out of editorial enthusiasm, the above article hints at the futility of achieving social progress through war, now that the Hydrogen Bomb has been developed by both sides. All wars throughout history (with very rare exceptions) have been political blunders, often used as camouflage for political ineptness, or just plain orgies of sadism. Technocracy contends that politicians are not worthy of social trust or responsibility; that the only proper course of action is the installation of a government of function — a Technocracy. A national policy of cold war against Russia is a highly dangerous situation for the whole world. On the other hand, an effective alliance between the U.S.A. and the U.S.S.R. to preserve peace in the world could abolish all wars. We submit, a combination of politics and war is a greater danger in the world than the hydrogen bomb.

Let's Keep America In Peace

For security in America — for a world peace which only an integrated technological operation of this Continent could maintain, for the building of a new civilization which shall be an example to all of the world, let us keep America in peace and set about the guiding of North America to its technological destiny of abundance as one nation and one people.

— Howard Scott

But — 'The Poppies Grow In Flanders Field'

National Tribune, (The Stars and Stripes) Aug. 27 — Thousands of veterans who have been promised free dental treatment by the Veterans Administration aren't going to get it, at least not for some time.

This was disclosed last week by VA officials as the agency announced new, stricter rules for giving dental treatment to veterans. The rules were changed to carry out restrictions made by Congress in the Second Independent Offices Appropriation Bill.

Under the new rules, a veteran may get treatment for dental trouble he can trace directly to his military service or found to be aggravating a disability he received in service. Under the old rules, he could also get free treatment if he could trace his dental trouble to a condition which showed up within a year after he left the service.

At the direction of Congress the VA must apply the new rules to a backlog of almost 250,000 veterans who already were expecting to be treated under the old rules, but who did not receive treatment because the VA didn't have enough money.

. . . A bill to restore the rights of these veterans was passed by the House in the closing hours of the last session, but did not get out of Senate committee. . . .

SCIENCE in the NEWS

EDITOR'S NOTE: The staff of the TECHNOCRAT has selected some of the latest information and developments in technological advancement, discoveries, and inventions which are responsible in changing our way of life from a system of scarcity to an economy of abundance. As the impact of technology descends upon the Price System, bringing with it an ever increasing rate of social change, the result will be a non-operative economy, unless we, the American people, have the intelligence to demand the application of science as a method of social operation.

Through Research Knowledge Is Increased

University of Calif., Los Angeles, Oct. 24 -- A University of Calif. at Los Angeles scientist is literally tearing water and other liquids apart with sound.

In a study of the tensile strengths of liquids, William Galloway of the physics department induces sound into a fluid-filled glass sphere with a vibrator attuned to the resonance of the sphere. The sounds literally split the liquid apart, causing a cavity or giant bubble in the fluid.

Great pressures are generated around the cavity and when the sound is shut off the "walls" of water around the cavity collapse with tremendous force. Small microphones used in the experiment within the sphere are shattered by the force.

A similar phenomenon occurs from vibrations created by propellers of big ocean liners. The cavities collapse with such force that they make holes in propellers. After prolonged use propellers assume a spongy appearance from this effect.

The process by which the liquids are torn asunder isn't understood. Apparently it is relative to the tensile properties of the fluids. It may be that a tiny, invisible air bubble is the basis of the process. When the water is expanded by the sound wave agitation, the air bubble may act like a pinpoint hole in rubber when the rubber is stretched.

In addition to water, benzine and salt solutions have been used in the study.

Science Replaces Blood Bank

London, June, (NANA) — Lives of British soldiers in the Malayan jungle may be among those saved by the work of a group of scientists at Benger's Laboratories, Holmes Chapel, Cheshire.

They have perfected a substitute for blood plasma which in many ways is better than blood itself for treating shock cases.

Their success means the saving of lives in hospitals — particularly in countries like malaya where blood for transfusions will not keep long.

It means also money saved, for it costs the health service less than a quarter of what blood and blood plasma cost to collect and store.

The substitute — better called a blood-volume restorer — was first used at Manchester Royal Infirmary in the treatment of shock cases. Its effectiveness was confirmed by the surgical department of Manchester University. Now it is being sent all over the world and a new plant is being built to cope with the increasing demand.

The substitute — Narrow Fraction Dextran — is the development of a substance discovered by a group of Swedish chemists.

This was a preparation of "Birmingham Gum," a gluey, useless by-product of the sugar industry.

The Swedish preparation was not a complete solution to the problem of restoring blood lost by patients through injury or in operations and it took the Cheshire scientists three years to produce the substitute which was as near perfection as possible. Unlike blood or blood plasma, it will keep indefinitely, is not affected by climate, carries no possibility of a "clash" between bloods and can be used when it is not possible to maintain blood banks.

But Where Is Direction

Chicago — To the growing family of man-made electronic superbrains you can now add Oracle, reportedly the fastest of them all.

The new computer, built at a cost of $350,000 at the Argonne National Laboratory of the Atomic Energy Commission will be installed at the Oak Ridge National Laboratory of the AEC early this fall. It was previewed for the press here recently.

Oracle (that stands for Oak Ridge automatic computor logical engine) comes from a distinguished family. It is a modification of the Avidac, built in 1950 for Argonne, which in turn was a modification of the computor used at the Institute for Advanced Studies at Princeton. However, the new one is twice as fast as its ancestors.

Its internal memory system is said to have the greatest capacity of any high-speed general purpose

computor ever built. It can receive, retain and process as many as 2,048 twelve-digit decimal numbers and is provided with a remotely controlled auxiliary memory system (magnetic tape) which permits the memorizing or storing of 4 million such numbers.

It can multiply a number such as 999,999,999,999 by 999,999,999,999 some 2,000 times a second and can add similar numbers in about five one-millionths of a second.

A difficult mathematical problem which would take 5 or 6 years for two mathematicians to solve with electric desk-type computors can be handled by Oracle in 20 to 30 minutes.

The new superbrain contains 3,500 electronic tubes about 20,000 resistors and seven miles of electric wire. Despite its complexity it is surprisingly compact. The arithmetic unit is 12 feet long, 2½ feet wide and 7 feet high, and the internal memory unit is only slightly larger.

The computor consists of four parts: The input-output section where the problems are fed into the machine and where the answers come out; a control section which tells other parts of the machine what to do, how to do it and in what order the work shall be done; an arithmetic unit which performs the various operations; and the memory unit.

Infinitesimal Timing

University of Calif., Los Angeles, Sept. 14 — A cosmic stop-watch that times events in billionths of a second has been developed by physicists on the campus of the University of California.

The group, under the direction of Harold Ticho, designed the instrument for certain cosmic ray studies under an Army Ordnance grant.

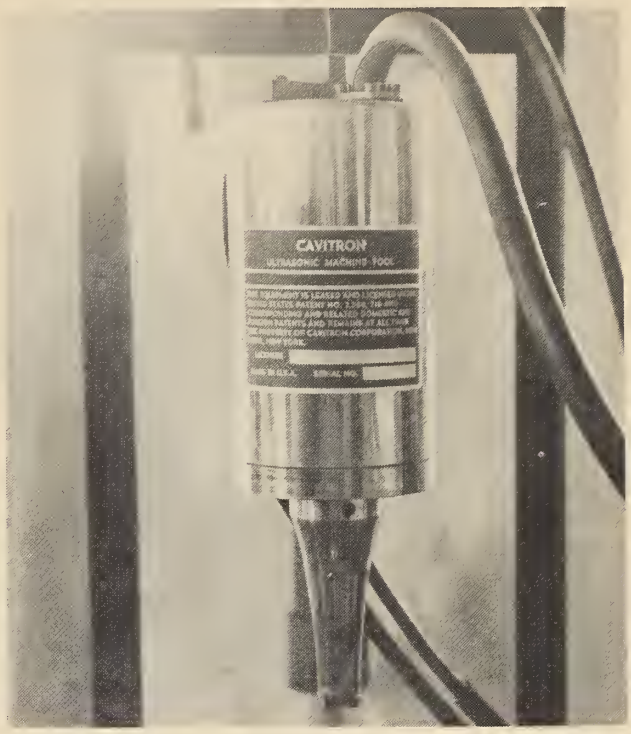
The device will be used to measure the lifetimes of certain heavy mesons, particles from atomic nuclei. Such particles are thought to exist for only billionths of a second. (One billionth of a second is to a second as one second is to a hundred years.)

The works of the outsized watch include Geiger tubes, scintillation counters, vacuum tubes and certain germanium elements. It works like this:

Fast moving cosmic rays from outer space, which bombard the earth constantly, create these mesons when they collide with atoms of matter in the device. These mesons pass through a fluorescent fluid in the instrument, then cease to exist. Their passage through the fluid causes a brief and feeble flash of light which is picked up by a photomultiplier tube causing it to flash briefly. The time interval between the two flashes is recorded and represents the mesons' brief life span.

Geiger tubes, which detect arrival of cosmic rays, alert the timing mechanism when to start ticking off its billionths of a second. The face of the stop-watch is actually the face of an oscilloscope and is characterized by a series of waves. Wave crests correspond to the numbers on a clock and are two billionths of a second apart.

TRANSDUCER HEAD OF THE CAVITRON



A Cavitron is probably the strangest industrial cutting tool in the world. It uses sounds you cannot hear to cut shapes and holes in the hardest materials known. Yet the cutting die can be a piece of softer metal.

Cavitron's ultrasonic vibrations start inside the transducer head, where nickel plates shrink 1,620,000 times a minute under the influence of electro-magnetism. This is the same magnetostrictive principle used in ocean depth finders and bacteria killing devices.

Another Demonstration of the Trend

New York, N. Y., (AP) — Bell Telephone Laboratories have announced development of tiny flat crystals with the ability to remember vast amounts of information.

They are expected to have wide application in providing much smaller equipment than now available for "memory" or information storage applications in telephone switching systems, electronic computers and other devices.

One of the new crystals, only a few thousands of an inch thick and a half inch square, can store approximately 250 bits of memory for an indefinite period, said Bell scientists. The light amber colored crystals are artificially grown from the chemical barium titanate.

. . . When figures for mathematical problems are fed into electronic computers, they are "remembered" by electronic tubes, magnetic drums and other devices, most of which require large volumes of space.

Bell officials said a few square inches of the new crystals have a potential for memory or information storage equal to many cubic feet of apparatus of the type now in use.

Time for Scientists to Face Realities

Liverpool, England, Sept. 7 (AP) — August British scientists were told to their faces today that their profession was "illiterate, inarticulate and irresponsible."

Scientists were so sized up by Ritchie Calder, chairman of the Association of British Scientists Writers, at the British Association for the Advancement of Science.

In his address Calder justified his harsh judgment this way:

"1. Illiterate — Because the test of literacy is the capacity to communicate ideas, and, in these days of specialization, scientists are the hostages of their own slang.

"2. Inarticulate — Because they cannot, or do not bother to, express themselves intelligently.

"3. Irresponsible — Because they will not accept their responsibility to consider, and explain, how their work will affect ordinary people's lives, at a time when science is producing convulsive changes and dangerous stresses in our civilization.

"They are content to leave their discoveries on the doorstep of society like abandoned foundlings, without concern as to the way in which they are used, misused or not used at all," Calder said. . . .

Poor England and Scotland

Halifax, July 9, (CP) — The seaweed is on the threshold of providing Eastern Canada with an industry whose products may soon turn up in ice cream, medicine and food.

Dr. E. Gordon Young, director of the National Research Council's Maritime regional laboratories here, said in an interview that plants are expected to be established in Quebec and Nova Scotia "within the next six months" to produce seaweed extracts.

. . . Dr. Young said the processing plants would at first be competing with the United States, Canada's sole supplier of algin and carrageenin.

Then, if low-cost production warranted, they could compete with England and Scotland. . . .

Fallacy of Atomic Secrecy

Wall St. Journal, June 30 — More than five years ago these columns began to point out what we regarded as the fallacy of atomic secrecy.

The purpose of secrecy was to conceal atomic developments from a potential enemy. From the start it was clear that this purpose was not being achieved. We now know how ineffectual it was. Russian spies were ferreting out atomic secrets even before the American public knew about the atomic bomb, and the utmost precautions have not prevented a steady leakage.

Atomic energy is not merely a weapon. It is a revolutionary discovery, ultimately to have a revolutionary impact on our economy and social structure. Whatever might have been the good intent of secrecy, the result has been to hide facts, not from the potential enemy, but from ourselves. New things cannot be developed as long as they are in the hands of a few men. The history of new discoveries and new inventions shows that their development depends on widespread knowledge and use.

Economic Reality

University of Calif., Los Angeles, Oct. 24 — Japan can exist in the framework of western nations only if it has adequate markets for its manufactured products, believes a University of California at Los Angeles historian who has just returned from that country.

Dr. Robert A. Wilson, who spent a year there on a Fullbright research grant, reports that Japan, in terms of normal trade, is going into the red at the rate of $700,000,000 a year and faces the constant threat of vast unemployment in its cities.

"Japan grows only 80 percent of the food it needs, despite effective utilization of its land and sea resources," Dr. Wilson points out, "and must pay for the food it imports with its manufactured goods.

"It has lost China, the historic outlet for its factories, and other near-by countries are now becoming industrialized themselves. Only the large sums of money spent in Japan as the result of the Korean war have kept things in balance as well as they are."

Dr. Wilson says one serious problem is that many measures which would stabilize Japan's economy are also politically suicidal for those in power.

"For example," he said, "Japanese industry is grossly inefficient in its use of manpower, making for inflation and high prices. Efficient use of labor, however, would lead to tremendous unemployment unless Japan's foreign markets could be greatly expanded."

Freight Airlift

A record-shattering 275 to 300 million ton-miles of air freight will be carried by U. S. domestic airlines during 1953 if present business trends continue.

In performing this unprecedented industrial and business airlift — more than 21 times the volume of the first postwar year, 1946 — the youthful U. S. air freight industry is continuing an expansion which has been uninterrupted every year of its existence.

Although the first scheduled all-cargo flight was made only some 20 years ago, and concentrated air freight efforts did not actually begin until World War II ended, increasing numbers of U. S. businesses are turning to the speed and dependability of airborne shipments as an avenue to increased efficiency and higher profits.

Growth Consistent

The growth of air freight operations has been consistent. In 1946, less than 15 million ton-miles were flown. By 1949, this figure had increased to more than 100 million ton-miles; and last year, it approached 225 million ton-miles.

Yet despite its rapid growth, future air cargo potential is virtually unlimited — as attested by the fact that 1953's air freight business still will account for only about 1/10th of 1 percent of the nation's total freight movements.

The 275-300 million ton-mile prediction is predicated on three basic factors.

1. A steady growth of air freight during the first half of 1953, pushing shipments 18 percent. Tonnage for the first half of the year exceeded 119.8 million ton-miles (compared with 101.6 million for the same period of 1952), and seasonal shipments are always greater during the latter part of each year.

2. A recent 15 percent increase in rail express rates, which is expected to influence many rail shippers to convert to air freight during the fall and winter.

3. The likelihood that the Korean truce will permit the return of many cargo aircraft to domestic service, giving the carriers added capacity to handle available traffic. More than three-quarters of the four-engined cargo aircraft owned by U. S. airlines have been flying the Pacific airlift since 1950. . . .

—Emery Johnson
Vice-Pres. and General Manager Air Cargo, Inc.

The Unites States oil industry operates more planes than do the nation's scheduled domestic, international, territorial and local-service airlines combined.

The 1,723 planes in the industry fleet vary from helicopters to the latest four-engined transports — and last year flew an estimated 60 million miles.

Several of the larger petroleum companies operate their own "airlines." One, for example, owns 21 planes to transport personnel and supplies across two continents, carrying an estimated 5,000 passengers each year on trans-Atlantic flights alone. This oil-company airline employs 325 persons, including two aeronautical engineers and 42 pilots.

The oil industry planes have also made the old-time prospector and his burro a part of the past by prying deep into the earth's crust with airborne magnetometers in search for oil and mineral deposits. In 1951, one Oklahoma operator flew 1,500 hours in prospecting alone.

The tedious and expensive task of patrolling thousands of miles of pipelines has also been made easier and less costly through use of light utility planes to check for breaks and leaks.

In 1951, 96 communities in 25 states had operators engaged in chemical and oil company transportation. Pipeline patrol activities were reported in 84 towns in 25 states, and 39 communities in 15 states reported operators engaged in mineral and oil prospecting.

—Planes, Sept.

Planes, Sept. — A mechanized assembly line, with 22 separate stations, cuts final assembly time on a new jet training plane by approximately 25 hours.

Preservation of Resources

Carrying freight by airplane is a high-cost method of transportation, which is excusable only in those cases where emergency or high speed is necessary. What North America needs seriously is low-cost transportation. This means that all slow freight shipments should be sent by water and fast freight sent by railroad wherever possible. Trucking is also high-cost transportation compared to water and rail transportation and should be restricted to short haul feeder lines and to special instances where trucking has particular advantages over other kinds of hauling. North America has neither the developed waterways or the proper kinds of railroads to provide efficient, low-cost transportation of materials and people. A development of a Continental Waterways System and a re-designing of the railroads are high on Technocracy's priority list for urgent reconstruction projects for the North American Continent.

CRITICAL COMMENTS

of the News

Reprinted from TECHNOCRATIC TRENDEVENTS

Prosperity Boom Getting 'Tired'

The greatest of all business prosperity booms — derived from the creation of several hundred billions of dollars of debt and an excessive wastage of production — is now getting 'tired' according to the apologists for the Free Enterprise phase of the Price System. Businessmen have been knocking themselves out for more than ten years in an aggressive and arrogant frenzy to leech the economy for all the profits they could get. They never had it so good; and the public has never been taken so good. Now, with a business administration in political power, one would think business would be wonderful. But, it so happens, technology has nothing but contempt for both business and political administration.

Science has now been applied to the methods of production to such an extent that, without the colossal waste of war and a continuously expanding debt, the channels of commerce cannot handle the huge supply of goods that are turned out, so the produce piles up and creates an 'over supply.' With no war to waste the produce and stimulate debt, business prosperity is getting 'tired.'

Technocracy contends it is time that all Americans were getting tired of being swindled by business; *that it is time we were applying science to the process of distribution as well as to production;* that it is time North Americans were abolishing business and political administration altogether as unsavory social diseases.

A-Bombs to Z-Bombs

In its competition to dominate the commerce of the world, the United States secretly lavished dollars, minerals, and technology on the production of the atomic bomb. It was then proclaimed that the Russians would not be able to match this achievement for decades, if ever. But, far ahead of 'schedule,' the Russians produced an A-Bomb of their own. So, we got excited and became even more lavish in the expenditure of money, minerals, and technology and we came up with the H-Bomb, reportedly a thousand times as powerful as the A-Bomb. Again we became complacent in the belief that the Russians could not catch up with us for a decade, if ever. One year after our first announced test, the Russians tested an H-Bomb of their own. This was confirmed by our Atomic Energy Commission — after the propaganda boys had been permitted to go 'all out' in denouncing the Russian report as a 'lie,' a 'hoax,' and a 'propaganda scare' device.

There is only one objective left for the United States under its present war policy course. That is, proceed as rapidly as possible to produce an alphabetical sequence of Bombs until we get to the Z-Bomb — the Bomb to end all bombs, all communists, all people, and the earth. Of course, you don't have to be crazy to hold a high place in the government; but, by golly, it sure helps.

The Fascist Technique of Intimidation

American citizens are being harrassed from all sides by pro-fascist plug-uglies in an aggressive attempt to intimidate them into accepting fascism as the North American Way of life. The excited dramatics being staged over the alleged 32,000 Communist Party members in the United States is all out of proportion to their significance in national affairs. Obviously, the dramatics are being put on for quite another purpose — to intimidate all Americans who are NOT pro-fascist in their ideas. The situation is reaching the stage where, if you do not readily succumb to fascism, you are subject to being fired from your job as a 'security risk.' For a man with a family, a job, and an inclination to think and express his thoughts, there is no freedom in America — only a fascist straight jacket. The dissenters are rapidly joining the ranks of the unemployed, which entitled them to wear an 'FBI' button — 'Fired By Ike.'

Two American Victories

The American State Department is jubilant over two victories it has achieved in international affairs. First, it instigated the ouster of Mossadegh from the premiership of Iran, which means that the oil merchants of America are closer to getting their hands in the oil of that country and any nationalist trend toward democracy has been effectively squashed in favor of the status quo. Second, in Western Germany, the American candidate, Conrad Adenauer, won re-election as head of the government, which means that Catholic fascism is firmly in control of that satellite for the present. From elsewhere around the world, there is nothing but pessimism to report — the friendship of other nations and other people for the United States continues to be dulled by Dulles.

The Eisenhower Sellout Continues

The Republican administration, under Eisenhower, proclaimed itself to be a business administration; and, as such, it has gone all out to give away the peoples' property to big business as a gratis handout plus subsidies. For instance, ever since the development of atomic energy, big business has been greedy for control of the profits but apprehensive about assuming the economic risks involved. Because of its nature and application, as well as the timing of its development, atomic energy had to be a government enterprise. But now that the research has been done and the production plants and processes established, big business is eager to get in on the gravy and the Eisenhower administration is the one to grease the ways for it.

The time has arrived when official consideration is being given to the production of atomic energy for power, especially since the way is clear to turn the merchandising of the power over to the private utility corporations. However, the building of the plant and the preliminary experimentation cost is estimated at anywhere between $20 million and $100 million (so it probably will be closer to $200 million), a sum which private corporate enterprise is unwilling to risk, at least so long as a friendly 'business administration' is eager to take the peoples' money to do the job; then, when the plant is completed and running, turn it over to private corporate enterprise as a virtual gift.

Of course, it would not look right to give the plant to the private corporations as an outright gift; besides, there are ways of making the deal far more advantageous to big business than that — if you have a business administration in power. It goes this way: The government 'sells' the atomic energy plants to corporate enterprise and the buying cost is added onto the cost of production (which then is higher than if the plant had been received free); then, a percentage of profit is calculated on top of this 'production cost' and the energy is sold back to the government or to the public at this inflated price. Thus, in the final analysis, the people pay for the cost of the plant TWICE plus a percentage of that added on, and big business wallows in the profits that a friendly business administration has provided at the peoples' expense.

Conspiracy Against Abundance

During August, the wheat farmers of America agreed among themselves to limit wheat production and accept government controls in exchange for price support. This is a close case of collusion and conspiracy against the welfare of the North American people as a whole. It means less wheat and higher prices, with a hope and a prayer that scarcity will prevail in spite of the oncoming avalanche of abundance. In America, during these last days of the Price System, scarcity and price must be given every conceivable priority over abundance of the good things of life.

Who Gets the Foreign Aid Dollars?

It has been reported that the United States is extending more than seven hundred millions of dollars in aid to France to continue the Indo-China war, which France and Frenchmen are very reluctant to do. One might get the impression that all these dollars are being given to France out of the goodness of our hearts or out of hatred for 'communism.' But, outside of a little bribery here and there, it is doubtful if these dollars actually leave the United States. They go to pay big business corporations in America for war materials which are then shipped to Indo-China to be used against the people of Asia. So, this 'aid to foreigners,' we suspect, is motivated, not so much by generosity for our allies, nor even by hatred for 'communism,' but in a considerable measure is a political pay-off to large American corporations which are close to the heart of the present political administration.

The American Citizen be Damned

With a cabinet of millionaires laying down the governmental policy of the country while 'Ike' acts as front man, and 'under divine guidance,' the cost of staying alive to the American citizen is on the increase. While our government can squander more than $700,000,000 on the war in Indo-China, it cannot abolish the tax on movie tickets. While it can spend hundreds of millions of dollars to interfere in the internal affairs of other nations, it will not provide or maintain social benefits for American citizens. While it proposes to repeal the excess profits tax and to reduce the tax on high incomes, it is suggesting, as a counter-measure, to levy a general sales tax on the consumer.

With declining hours of employment, due to less over-time or a reduction of regular time, and with the cost of living going up to new heights, all that the consumer needs now is to get slapped with a general 20 percent sales tax on everything he buys. In November, 1952 the people thought they were voting for something — now they have it.

A Sense of Humor

The grantors of the Nobel Prizes cannot be accused of lacking a sense of humor — not after awarding the prize for literature to Sir Winston Churchill and nominating Harry S. Truman for the Nobel Peace Prize. If the Communist Party of America had displayed a similar sense of humor, it is doubtful if it would be in the difficulties it is in today; for instance, if in 1948 it had nominated Robert A. Taft as its presidential candidate and Francis C. Spellman as his running mate. However, we are unable to see any humor in the American handouts to Franco, regardless of the angle from which they are viewed. But sending Richard Nixon on a 'good will' tour of the world is really funny.

—Techno Critic

The RESEARCH BULLETIN

NEWS ITEMS OF SIGNIFICANCE QUOTED FROM THE NATION'S PRESS

Economic Indigestion

Ottawa, Sept. 11 (AP) — Although Canada's prairie farmers have produced a near-record grain crop this year, many may have to fall back on the earnings of last year's record harvest to tide them over the critical months ahead.

Trade Minister C. D. Howe, announcing a $100,000,000 Canadian Wheat Board payment to farmers on 1952-53 grain, made clear today that the farmer's chances of disposing of wheat this fall were not as good as they were a year ago.

But he said he believed the present Wheat Board payment added to earnings by the farmers on last year's crop "would materially assist in financing producers during the difficult fall months when producers' deliveries of grain would of necessity be smaller than during the preceding fall."

Mr. Howe gave no indication of any special government assistance to producers to encourage farm storage, although, he said, it is inevitable that with a large crop being harvested, farmers will have to carry unusually large stocks of grain on farms until adequate storage space is cleared.

The critical problem results from the fact that farmers have produced three bumper crops in a row, causing a storage congestion at country and terminal elevators. Added to this is the fact that Canadian sales of wheat have dropped sharply below what they were a year ago and the immediate outlook for heavy sales is not promising.

The $100,000,000 Wheat Board payment includes $64,000,000 covering an interim payment of 12¢ a bushel on all grades of the record 533,000,000 bushels of wheat shipped by farmers to the board during the 1952-53 crop year. It also includes $36,000,000 to cover the close-out of the 1952-53 oats and barley pools. Mr. Howe said the payment on each bushel could not be worked out until pool accounting was completed.

Profits Before Conservation

Los Angeles (Wall St. Journal) Oct. 6 — Union Oil Co. of California indicated it is becoming concerned about the sloppy petroleum supplies when Reese H. Taylor, president, declared: "There has been no improvement in the total petroleum inventory situation on the Pacific Coast."

He explained: "Total supply continues to exceed requirements for domestic, military, and export sales as it has since the early part of this year, reflecting large crude oil imports. During 1953," he noted, "industry inventories have increased at an average rate of about 2.5 million barrels per month and are now estimated to be at levels 25 percent higher than a year ago.

"If imports continue at their current rate," Mr. Taylor fears, "industry inventories may soon reach burdensome levels. Union Oil," Mr. Taylor reported, "is keenly aware of the problems which would arise from excessive inventories. In contrast with the industry, whose imports are running about three times last year's average rate," Mr. Taylor said, "Union has imported nothing this year."

Sweet Charity for Whom?

Christian Science Monitor, Aug. 7 — It seems ironic that the United States Government is having to buy most of the $15,000,000 worth of food supplies now being shipped for East German relief, when it has $2,184,000,000 in surplus foodstuffs in storage, purchased under the farm price-support program.

But that's the way it is. The government is buying flour, lard, and dried milk for these shipments in the open market.

The only item coming out of the surplus stocks is dried beans, of which there is only a small supply on hand.

Now if the East Germans could use raw wheat, the government has 405,000,000 bushels to dip into. But what they want is flour, and the government hasn't gone into the milling business.

It is buying dried milk for the shipments, even though there are some 188,000,000 pounds on hand, stored in drums of 100 pounds or more. What is needed is dried milk in small packages for individual distribution.

Lard, the government would have had to purchase anyway, since there is none on hand in the surplus cupboard.

Actually, the government is not on the losing end of this deal entirely. *For whatever it takes off the market now in the way of commodities which are in surplus, it will not have to purchase and store later under the support program.*

The relief purchases are also counted as having a "good psychological effect" as far as farm commodities and farm surpluses are concerned.

What will help more in reducing the big government-held supply of food surpluses, however, is the

new authority just given the President by Congress to send $100,000,000 worth of such stores to foreign countries in need of such aid.

That doesn't mean that the President can give supplies where they are not wanted or that he would elect to make them if they were to have serious repercussions on the world market. . . .

Technology Brings Social Revolution

University of Calif., Los Angeles, Oct. 17 — North Africa and the Middle East are undergoing what might be called a social revolution, reports a U.C.L.A. geographer who has just returned from a year of study in Europe and the eastern Mediterranean.

Dr. Huey Louis Kostanick says rapid social changes taking place in such countries as Egypt, Syria, and Turkey are mainly the result of improved communication facilities and faster modes of travel.

Also stimulating social revolution in these areas, according to Dr. Kostanick, are the improved agricultural methods introduced since World War II.

"Centuries old agricultural practices have, without outside technological help, been giving way to use of contour plowing, better seed, improved breeding stock and limited mechanization," the U.C.L.A. professor said.

Dr. Kostanick, who spent his sabbatical leave doing research on land utilization and postwar developments in Greek and Turkey, says these two countries have made the greatest progress in the Mediterranean area toward economic rehabilitation and self-sufficiency. The morale of Turkey, he says, is the best in the entire eastern Mediterranean.

Price System Concept of Conservation — Dollars Only

Copper Cliff, Ont., Sept. 17 — The International Nickel Company of Canada, Limited, announced today that in a historic development it was undertaking the production of by-product iron ore from nickel ores in the Sudbury District of Ontario, where its mining operations are centered.

Outlining plans for the project, J. Roy Gordon, Vice-President and General Mgr. of the Canadian Operations, said the company was beginning immediately the construction of a $16,000,000 plant in the Copper Cliff area as the first unit in an operation which will ultimately yield about 1,000,000 tons of high-grade iron ore a year, in addition to nickel, from Sudbury ores.

. . . The new plant will supply iron ore higher in grade than any now produced in quantity in North America. Containing at least 65 percent iron natural and less than 2 percent silica.

. . . By comparison, ore from the famed Mesabi pits of Minnesota contains 51.5 percent iron natural. The North American steel industry is presently largely dependent on imports from such countries as Brazil, Venezuela, Sweden and Liberia for its requirements of ore as high in grade as Inco will produce.

The new process, with its yield of iron ore, now makes possible the treatment of lower grade sudbury ores hitherto considered uneconomical. The Inco method, in addition to being the first to permit the recovery of high-grade iron ores, is of great importance in opening the way for increased recovery of other elements, including sulphur when its production is economically feasible, from the complex Sudbury ores.

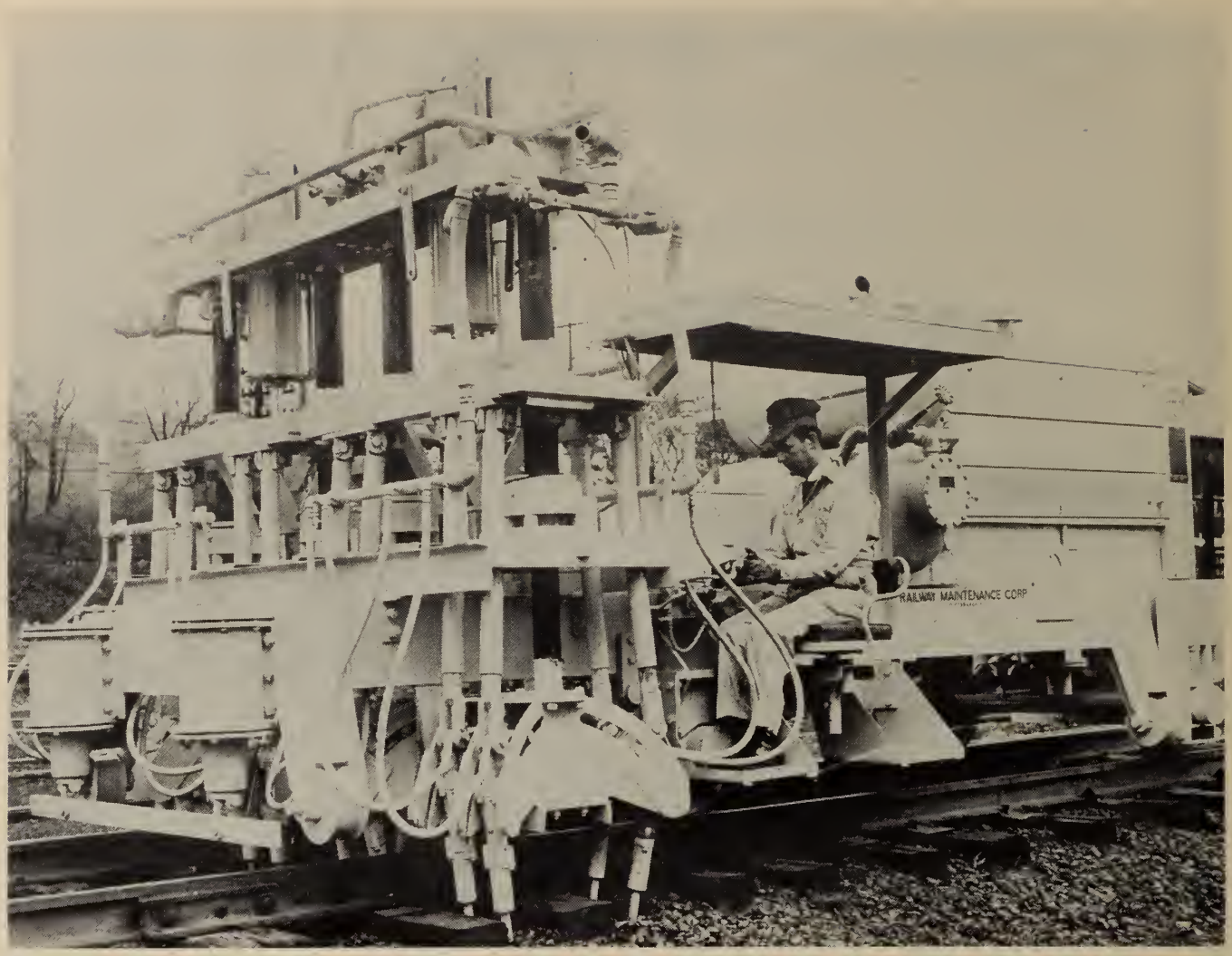
A Point of No Return

The Manchester Guardian, Aug. 20 — The recent announcement that a second new anthracite colliery is to be sunk in South Wales marks an important stage in the redevelopment of a languishing industry. Anthracite is one of the rarest and most coveted forms of coal, and the extensive deposits in Wales are among our greatest natural assets. But although there is a queue of customers both at home and abroad for Welsh anthracite the market is the reverse of healthy, for the more anthracite the Coal Board sells the more money it loses, every ton being produced at a loss. Costs in the anthracite area are the highest in the coal industry, partly because the pits are old and small, and partly the legacy of some bitterly unhappy labour relations. Costs have in fact been so enormous that the Coal Board has never dared to charge an economic price for anthracite; the pits have been kept going because it is such a useful fuel and because there is an important export trade in it with Canada, which earns dollars even if the pits lose pounds. The Coal Board has now undertaken to spend some £13,500,000 on sinking new shafts to reach untapped reserves. It will still be some years before this capital outlay begins to yield a return, but the sinking of new pits has an immediate human value as a demonstration of confidence in the anthracite coalfield. The Coal Board estimates that over the next fifteen years the production of anthracite will be increased by about 18 percent; and as this increase is to be achieved in new pits with modern methods the cost of anthracite-getting should come nearer being profitable. There may even be a little more for the home market; it would certainly be welcomed.

Increased Efficiency or Imports?

Washington, (Trainmen News) — National Legislative Representative Harry See recently called upon Congress to provide the remedy for the alarming and steady increase in railroad unemployment in the eastern section of the country.

. . . He singled out three coal regions to illustrate the detrimental effect the importation of oil has caused in the Eastern, Allegheny and Pocahontas regions for the five-year period, 1948 through 1952,



With this machine, the McWilliams multiple tamper, one man operates sixteen pneumatic tie tampers and does work that formerly required sixteen men. Morever, the machine works steadily, never tires, and each of the tampers follows the same path every stroke, thereby always producing the same results

This Quonset, 40 feet wide and 100 feet long, looked like this in July of 1952 — full of hay and ready for the cows. Self-feeding mangers are pushed through barn by cows as they reach for more hay. As hay is eaten, cows get more shelter space in the barn.

there has been a loss of 18,185 jobs among railroad train and enginemen.

"This figure," he said, "does not include yard enginemen or yard trainmen or any employees of the non-operating crafts. If we include yard employees and members of the non-operating groups . . . the number of jobs rises to the staggering figure of 79,457."

Hastening to assure Committee members that the Brotherhood did not ascribe all of this enormous increase in railroad unemployment to any single cause, he said that "we cannot escape the obvious significance of an increase in oil imports over the past five years to a point where in 1952 a total of 129 million barrels were imported. This is a huge increase over the figure of 53 million barrels in 1948."

Bee or Not to Bee

Los Angeles Herald and Express, Oct. 2 — Eat more honey, is the plea today of California beekeepers, who sought help from leading retailers and businessmen in boosting sales of the sweet liquid, especially during National Honey Week, October 26, to help consume the surplus.

At a luncheon meeting yesterday in the Los Angeles Athletic Club, market, bakery and restaurant representatives promised to support the beekeepers.

Ray Reed, chairman of the California Honey Advisory Board told the group that the country will produce a surplus of 10,000,000 pounds of honey this year, pointing out that California alone — greatest honey producer in the nation — produces twice as much honey as her residents consume.

Reed said that the government during World War II encouraged beekeepers to speed up production to pollinate many important crops. Since then the production keeps increasing, but consumption has not kept pace.

Shale Oil

Rifle, Colo., Sept. 10, (Wall St. Journal)—High on the slope of a rock mesa near here stands a new steel tower that's helping brew a petroleum revolution.

This arid western Colorado community is the site of a spectacular experiment with marlestone, a slate-gray shale rich with petroleum in solid form. If the oil can be taken out of this rock cheaply enough — and signs are multiplying that it can be done — this area will yield vast quantities of liquid fuel for the nation's autos, households and industries.

. . . This year's economy-minded Congress actually raised the 1954 Federal appropriation for oil-from-shale research to $1,943,904 from $1,868,904 in the 1953 budget. At the same time it cut oil-from-coal research appropriation to $2.5 million from $5.8 million the year before. By June, 1954 the taxpayers will have sunk $80.9 million into both types of Federal synthetic fuel research. The program started in 1944 when there was a wartime shortage of fuel.

Reason for the present-day search for a supplement fuel supply is the tremendous growth in demand in this country for petroleum products.

. . . The question of when these reserves can be brought into use hinges on a series of as yet undetermined factors: Will oil exploration continue to grow more costly? How fast will demand continue to rise? And, the key question, just how much does it cost to turn a slab of rock into a gallon of gasoline?

. . . A 500,000-barrel-a-day plant in Colorado could produce gasoline with a wholesale price of 16.2 cents, delivered to the nearest large market, the West Coast. A plant five times that size would increase efficiency to the point where the gasoline could sell for 14.7 cents.

Current wholesale price of gasoline at Los Angeles is 13.3 cents to 15.8 cents. . . .

Why Pay to Maintain Scarcity?

Minneapolis Star, July 8 — The agricultural surplus juggernaut came down the farm road last week and the administration couldn't dodge or even just be sideswiped. The production limitation which will result will affect a third of the nation's crop land.

Three facts which have come home to roost in the farm problem loft are: The country is committed to price support for many farm products. This support is frequently at 90 percent of parity. Full 100 percent parity would require that the price of farm products today be high enough to buy exactly as much of goods farmers buy as farm products would command in the base period.

In brief, the buying power of products raised by farmers is to be kept up to at least 90 percent of what it was in a period also favorable to the farmer.

The country has big surpluses, present and ahead, of farm products. The important fact about these surpluses is that they have been accumulated in a period of very high prosperity. The surpluses are not the result of any failure of demand or failure of buying power on the part of those who buy what the farmer produces.

There has been a tremendous increase in the productivity of our farmers. The surpluses are the result of this output gain encouraged by high prices and high price supports.

. . . Now we are back to more normal conditions. Over all the world we had high crops last year. The world's production broke all earlier records. Then Europe too is recovering so we do not have the huge market there which we had in 1947 for example, or even a few years later.

. . . Farm production can be cut all around only if government supervises the act. Cutting down production evenly for all farmers makes the bigger farmer less efficient. It may leave the little fellow

with too small a farm unit for successful operation. Both results make your food cost more.

Should we have at least increased if not fairly wide spread industrial unemployment, the workers might demand help such as the farmers have been getting. They would demand help when the going is rough. The farmers have been getting assistance in very good times. . . .

National Interest Railroaded

New York, July (AP) — The president of the New York Central Railroad has declined to go along with a suggestion by a United States senator that eastern railroads stop fighting against the St. Lawrence seaway project.

Senator Hubert Humphrey (Minn.) wrote President William White asking that the railroads "exhibit statesmanship in the national interest" regarding the seaway. He said the Eisenhower Cabinet had given it full support.

In a letter written July 21, White replied to Humphrey:

"Both as the representative of a $2,000,000,000 corporation and as a private citizen and taxpayer, I am convinced the St. Lawrence seaway is something that we do not need. . . .

More Business Pains

Labor, Sept. 19 — The Commerce Dept. and Securities and Exchange Commission report expenditures on "new plants and equipment" this year with an all-time record peak of $27.8 billion — a five percent increase over even the huge expenditures last year.

As a measure of prospects for prosperity, the report has both a bright and a dark side. The industrial plant and equipment boom stimulates all kinds of business and employment, *but how long will it continue?*

The report says the building of plants and buying of equipment will fall off in the last three months of this year. What will happen after that? Some economists think the drop will become steeper, for the following reason:

Several years ago, after the Korea war began, Congress passed a "rapid amortization" law permitting corporations to "charge off" in five years instead of the usual 20 or more, the cost of new plants and equipment. This makes their profits look much smaller than they really are, and thus greatly reduces their taxes.

Theoretically, these tax cuts were to be granted only on new plants and equipment "necessary to national defense." Actually, under both the present and preceding administrations, corporations had to do little more than ask for this tax hand-out and get it.

To take advantage of this profitable loophole, many corporations rushed to build plants and buy equipment sooner than they otherwise would. That means fewer plants and less new equipment will be needed in the future.

Moreover, the rapid amortization law will soon expire. Then corporations will have no special "tax incentive" to build and buy.

What will happen then? Will the plant and equipment boom drop off sharply, removing this stimulant to prosperity and deepening a possible depression? That's what is worrying thoughtful economists. . . .

Technology Raises Living Standards

The Cleveland Trust Co., Sept. 16 — Productivity, or production per man-hour, in ten leading manufacturing industries has been moving up since World War II. It is now about 33 percent above 1939 and 30 percent higher than in 1946, the first full postwar year.

The industries now included in the computations are iron and steel; lumber; stone, clay and glass products; textiles; leather; manufactured food; tobacco products; paper; printing and publishing; and petroleum and coal products.

The production data used are components of the Federal Reserve index of industrial production. The revised series of the Bureau of Labor Statistics were used for employment and hours of work, these series being adjusted to earlier data prior to 1947. Man-hours were computed by multiplying the average monthly employment in each of the ten industries by the average number of hours worked. Then total production was divided by the man-hours worked, giving the production per man-hour.

. . . For many years, output per man-hour has increased through the adoption of improved plant, machinery, and operating methods, which means that more and better goods can be turned out per unit of productive equipment. Thorough studies of productivity trends have been made by the National Bureau of Economic Research and others, and the average yearly rate of increase in output per man-hour has been estimated at between 2 and 3 percent over a long period.

This is the fundamental cause for the rise in living-standards.

Exports — Undependable Prop

Washington (Wall St. Journal) Sept. 21 — Agriculture exports plummeted to $2,815,407,000 during the 1952-53 fiscal year, the lowest since food exports were $2,191,000,000 eight years ago in wartime 1944-45. Exports fell 31 percent from last year's record high of $4,053,030,000.

At the same time non-agriculture exports, which accounted for about 80 percent of all commodities, increased 6 percent from $11,516,671,000 in 1951-52 to $12,237,362,000 last year, the highest since $12.3 billion in 1943-44. However, all exports amounted to $15,052,769,000 during 1952-53, 3 percent below

the previous year's record of $15,569,701,000.

. . . On a quantitative basis, cotton exports fell most sharply — 50 percent below the previous year. Only 6.1 million bales of cotton and 3.1 million bales of linters left the country during the 1952-53 period. Wheat and flour exports fell from 475 million bushels to 317 million bushels, or 33 percent decline. Lard exports dropped 37 percent from 754 million pounds a year ago to 475 million pounds.

Soybean oil exports were 130 million pounds, down 66 percent from 380 million pounds from 1951-52. However, that was partly offset by soybean exports of 30 million bushels an 88 percent increase from last year's 16 million bushels. . . .

CHANGE OF ADDRESS

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The TECHNOCRAT
8113 South Vermont Avenue
Los Angeles 44, California

The Reader's Corner - - -

QUESTIONS FROM OUR READERS—(Editor's Note: Readers of The TECHNOCRAT are invited to submit brief questions on matters pertaining to the social problem of North America or on points of Technocracy's program which are not entirely clear to them. Questions must bear the signature and address of the writer; this is for reference only and will not be used in the magazine. The Editor reserves the right to select the questions to be used and to change the wording, if necessary, for brevity or clarity.)

Why are the fascists reactionary, but still go on making technological strides?

Fascism uses technology to the best of its ability to freeze the further advancement of technology. This is because the advancement of technology creates unsolvable social problems. As long as any economy is in a state of expansion, it is not compelled to solve its social problems. They can be glossed over. The pressure for social change inherent in every social problem is always relieved by the escape valve of new frontiers in agriculture, industry and geography.

From the birth of America until about 1910, one could always escape from his problems. If one couldn't stand his lot in life at home, he could always go out West, and squat someplace, and let the country grow up around him. This was a favorite route to Easy Street in America for a long time. Then, again, one could always go into business for himself. It wasn't hard to do in an expanding economy. The melting pot of America boiled with multifarious social problems for over a hundred years. But it never boiled over, because the steam escaped faster than the heat of technological advancement applied underneath the pot.

Since our social system is organized to produce and exchange goods and services for a profit, a certain set of physical conditions is necessary for its continuance. First, there must always be a scarcity of goods and services; else there will be no profit. Second, there must always be enough man-hours of labor available in the system to provide purchasing power to buy goods and services and keep the wheels of industry turning. This boils down to one or the other of two types of Price System operations.

The first one which has existed all over the world for thousands of years is essentially a static state of society. It is composed of a set of physical conditions wherein there is a state of natural scarcity of goods and services. This is combined with a handicraft-agrarian human-toil hand-tool method of production and exchange. Social change is frozen at a low level.

The other type of Price System operations is one in which there is a continuous state of expansion, agriculturally, industrially and geographically. The first type of Price System operations may go on indefinitely. It is balanced by both man-made and natural repressions. The second type, obviously, cannot

go beyond a certain point. First, it soon reaches the limits imposed by natural forces. Second, the impact of technology, whose advent made the expansion possible, soon imposes restrictions also.

Technology reduces man-hours of labor and thus reduces purchasing power. The process is cumulative of both ends. The effect of this can be evaded for awhile by various devices. Among these are installment buying, Government spending, and war. The general trend once started feeds upon itself and grows greater. The heat of technological advancement underneath the social pot continues to mount in intensity. The natural escape valves of the Price System are wrecked. The devious devices that have substituted for them are becoming more and more unworkable. Ergo, the pressure for social change, rises higher and higher.

There are only two Price System ways out of the dilemma. One is to find somehow a new and legitimate period of physical expansion. The other is to revert back to an earlier stage of development and freeze the social mechanism there. That essentially is what fascism is attempting to do.

Fascism is social reaction to escape from the problems brought on by the advancement of technology, by killing off a sufficient number of the population so that a handicraft-agrarian system of human toil and hand tools will be adequate to support the survivors. It is a conspiracy by corporate enterprise, ecclesiasticism and the political state to resist social change. Naturally, it uses the most efficient tools at hand. That is why it employs technology. Its object, however, is to imprison technology and thus control its social impact.

There is only one sure way to defeat fascism in America. That is by means of Technocracy's Design for Continental Direction. This will free Technology from all Price System restrictions and give it full liberty of action to solve America's social problems for good and for all.

Social Insurance For All

(Continued from Page 5)

will have no excuse for commiting violations against property or persons as a means of self-maintenance. By this one form of social insurance, at least 95 percent of the recognized crime of today would disappear. With that much of the crime out of the way, the rest of it could be eradicated by other means.

Another serious handicap to society is the private ownership of public property. We define public property as anything that is used or operated by two or more individuals. We define private property as that which is used exclusively by one individual. There may be a few special exceptions both ways, but these definitions will hold for nearly all instances. Thus, it is obvious that such things as automobiles, houses, factories, farms, roads, printing plants, and streams of water all are public property. Aside from clothing, personal effects, and private books and papers, the individual will own very little, and there will be no occasion or need for him to own more. However, the individual will be able to use a great deal of property that he does not own outright, much like we use telephones, railroads, restaurants, and other facilities today. Private or corporate ownership of public property will not be a means of withholding it from use, restricting its use, or misusing it to the disadvantage of the society.

With public ownership of public property, no private or corporate personality can interfere with social operations by virtue of proprietary rights. All public property will be owned and operated by the social order for the welfare of the entire population. Since there will be no possibility for predatory individuals to socialize their ambitions and operate against the general welfare for special gain (that is, incorporate a business enterprise), there will be no incentive for anyone to sabotage the operations — as happens so often under the Price System when a public function is taken over and operated by the public. As an example, we need only refer to the dirty work that the 'private' utilities have engaged in to interfere with the public ownership and operation of the public electrical plants. A complete list of examples of such sabotage would be very long and sordid. It is only natural for those who stand to make private gain from chiseling the public to resist with all means, fair and foul, the losing of their enterprises to public ownership. However, once the Price System is eliminated, the incentives for sabotage will also disappear.

In the Technate, we shall have for the first time a 'government of the people, for the people, and by the people.' The personnel of the Technate will consist of all citizens of the Area, each devoting a small fraction of his or her time to some function; and this personnel will be organized in vertical alignment within various functional Sequences in accordance with the training and capabilities of the individuals. The products of this social operation will be distributed in abundance to the entire population on an equitable basis, regardless of race, sex, creed, education, intelligence, or functional achievement. Technocracy will become an Area-wide application of that social ideal, 'One for All and All for One.'

Thus, in the Technate, there will be the maximum of insurance for the survival and welfare of the individual, without his having to take out and pay for a policy issued by some predatory corporation for profitable gain. There will be no economic reason for apprehension about old age, widowhood, sickness, or incapacity to function. For the first time, the individuals of this Continent will be free to develop and behave as individuals without fear of economic reprisals for doing so. It is possible that someone will not like your personality or your subjective tastes, but said someone will not be in a position to bring economic pressures to bear upon you in an effort to make you conform to his ideas of propriety,

regardless of his functional position in the Technate. The most he can do is deprive you of his close association, and that is something that can work both ways.

The Technate also will insure the security of the Area as a whole from outside conflicts. One major step in this direction will come from operating this Continent as a self-sufficient and self-contained Area. This is in contrast to the present aspirations of American business, which is seeking to colonize the whole world for purposes of grabbing off the resources and making other countries buy our products.

If other nations don't like the idea of becoming American colonies under American business administration, the present Leaders do not hesitate about pointing to our stockpile of atomic bombs, which gesture says in effect, 'You had better like it.' The psychosis of American business enterprise is a highly dangerous hazard to the security of this Continent. It could lead to an atomic war; in fact, there are businessmen, militarists, politicians, and ecclesiastics in America who are spoiling to start an atomic war. The daily papers, slick magazines, and radio broadcasts are full of their bellicosities.

Security Assured

For the sake of the security of this Continent, among other reasons, it is high time that the statesmanship of North America were directing its attention to organizing the Area to operate on the resources and products of this Continent and letting other continents retain their resources for their own use. We cannot proceed on the principle that the world is an American colony, to be looted for its resources by American business and to be forced to supply a market for our shoddy merchandise. There is no need, however, for instituting a policy of isolationism; rather, let our relations and trade with the rest of the world be on the basis of essential need and mutualism, not on the basis of business expansion and exploitation.

Along with guaranteeing the security of the Continent, Technocracy will also guarantee the security and welfare of the individuals living on the Continent. Thus, Technocracy is the ultimate in social insurance — without chiseling, red-tape, or excuses. There will be no sticky fingered shysters to handle the funds, either; for, there will be no funds involved, and there will be no incentives to develop one's predatory and filching instinct-tendencies. The North American citizen will be relieved from the greatest of all hazards to his safety and well-being — the Price System. The citizen of North American will have genuine insurance without the headaches and uncertainties that are associated with the dubious insurance schemes of today. Like the sunshine, the breezes, and the showers, social insurance will be free and will fall on all alike.

—Wilton Ivie, CHQ

This Months Cover

Banana Unloading Modernized

The newest and largest banana unloading terminal in the world is now in operation at the United Fruit Company steamer docks in Weehawken, New Jersey. The terminal occupies some 37 acres..

The project was conceived by company engineers and researchers who had tackled the project of improving the quality of bananas in the retail market. Investigation determined that improving handling techniques at pierside and providing better protection for the fruit from ship's hold to railroad car or truck were of prime necessity. Out of this thinking came the design for the Weehawken Terminal and the invention of one of its most remarkable features, the curveyor, by United Fruit Company engineer Webb Kingsbury. The Weehawken setup utilizes four of these unique flight cable conveyors, one serving each hold of the ship, which carry stems of bananas from shipside around curves, up and down grades, and along loading platforms to waiting railroad cars and trucks, to return empty to shipside. Each curveyor, averaging 1500 feet long, consists of a series of curved rubber pallets connected by wire cables instead of a long, straight belt as with the conventional conveyor.

The new terminal is the quay type, or parallel with the shore line, and is 1000 feet long, just 10 feet longer than the SS United States.

The eight railroad tracks under the roof have a total simultaneous loading capacity of 72 cars, while the truck platform can handle 40 trailers.

Actual discharge of steamers is accomplished by four gantry leg cranes operating from an apron between the ship and track shed. Incorporated in these gantries are vertical-pocket-type endless conveyor belts which lift the fruit from the ship's hold and deliver it to the curveyors in the shed.

A saving of several hours in the dispatch of fruit to markets is estimated under the improved transportation arrangements which eliminate the necessity of transferring the refrigerator cars on floats between the New York and New Jersey shores.

PICTURE CREDITS

Front Cover.....**United Fruit Co.**
Pages 7 and 8.....**Steelways, published by Iron and Steel Institute**
Page 11.....**Minneapolis Star**
Page 13.....**Nickelsworth**
Page 20....**(Top) Railway Maintenance Corp., (Lower left) Stran-Steel Products Co.**

Technology Protects Our Children

Street crossing on rainy days is safer for school children who can see what's ahead through a safety window made of clear Krene vinyl film set in a smart new umbrella. Tough and flexible, the film resists water, mould, mildew, and is easy to clean with a damp cloth or sponge. This safety window is firmly stitched into the umbrella fabric between two ribs of the steel frame. The resistance of Krene vinyl film to cracks or creases caused by repeated umbrella folding helps keep vision clear. The safety umbrella comes with assorted colorful loop or crook handles. Children's window umbrellas in bright red, green, purple, blue, pink, and other pastel colors can be matched with larger size window umbrellas for women. Product of Rainseth Umbrella Co., Inc.

(Bakelite Review, October, 1953)

Why We Need Continental Hydrology

Topeka Daily Capital, Sept. 17 — Importance of politics in flood control decisions was stressed Wednesday night by Dwight Payton, Overbrook editor and president of Kansas Watersheds Association in a talk to the Topeka Chapter, Society of Professional Engineers.

In reviewing his experiences in the flood control wars of Kansas during the past two years, Payton said:

"Not the least of the absurdities in the picture is the way the big damers complain about the Blue Valley injecting politics into flood control. The simple and ungarnished truth is that the whole mess is based on politics *with engineering a secondary consideration*. . . .

The Last Lap

The Vancouver Province, Sept. 19 — Liberal Leader Arthur Laing warned the Social Credit Government Friday that B. C. is facing deflation, declining markets and industrial unrest and wanted to know what plans the government had, to do something about it. About all he could see were government plans to impose new taxes on the forest industry, which provides 62 cents of every B. C. dollar and is already in difficulties, and mining, with mines closing down almost every day and new ventures "a greater risk than a pari-mutuel."

"Conditions outside our control augur ill for both forests and mines," Mr. Laing said. "Have we priced ourselves out of markets, which, if we lose, we lose at our peril?"

One thing that could be done, and that is to improve labor-management relations financed equally by labor and management.

This should be supported by the government, "otherwise we will have economic civil war." . . .

Statement required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (Title 39, United States Code, Section 233) showing the ownership, management, and circulation of

THE TECHNOCRAT, published quarterly at Los Angeles, California, for October 1, 1953.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, Managing Board, 8113 So. Vermont Ave., Los Angeles 44, Calif.; Editor, Kay Dunagan, 8113 So. Vermont Ave., Los Angeles 44, Calif.; Managing Editor, none; Business Manager, Therese E. Bertoia, 8113 So. Vermont Ave., Los Angeles 44, Calif.

2. The owner is: (if owned by a corporation, its name and address must be stated and also immediately thereunder the names and address of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member must be given.)

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3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of the total amount of bonds, mortgages, or other securities are: (if there are none, so state.) None.

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5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semi-weekly and tri-weekly newspapers only.)

Therese E. Bertoia,
Business Manager

Sworn to and subscribed before me this 5th day of October, 1953.

(Seal) Merle McCollum

(My commission expires May 13, 1957)

The TECHNOCRAT STAFF

Kay Dunagan ..... Editor
Don Hubbard ..... Assistant Editor
Kenneth C. Wolford ..... Research Editor
Nan Jensen ..... Secretary
Edward Heidrich ..... Circulation Manager
E. V. Bertoia ..... Promotion Manager
Therese E. Bertoia ..... Business Manager

TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America or elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $6.00 which are paid by the member to his local Section. Members wear the chromium and vermillion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers, and economists that became known in 1920 as the Technical Alliance — a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every State and in every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher, or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

The TECHNOCRAT

Offering to the American public a medium by which it can learn the facts regarding the transition period in which we are moving toward a New America of technological abundance.

Pamphlets

Introduction to Technocracy	25c
Make Way for Social Change	15c
Man Hours and Distribution	15c
The Energy Certificate	10c
Science vs. Chaos	10c
Continentalism—The Mandate of Survival	15c
The Culture of Abundance	15c
'There'll Always be an England'	10c
'Our Counrty Right or Wrong'	15c
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Magazines

THE TECHNOCRAT, 8113 So. Vermont Ave., Los Angeles 44, Calif. 25c per copy; 4 issues, $1.00; 12 issues, $3.00.

TECHNOCRACY DIGEST, 1166 West Georgia St., Vancouver, B. C. 25c per copy; 4 issues, $1.00; 12 issues $3.00.

NORTHWEST TECHNOCRAT, 2208 8th Ave., Seattle 1, Wash. 25c per copy; 4 issues, $1.00; 12 issues, $3.00.

All Three Magazines, one year (12 issues), $3.00.

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A NEW DIRECTION FOR THE YOUTH

Technocracy is grown out of this Continent and it belongs to this Continent. Youth that is grown out of this Continent will find its direction in the organization that is grown out of the same soil. Technocracy offers youth a structure of organization designed to carry out a specific task in the near future. Technocracy offers a scientific method to carry on that task. Technocracy offers a factual social analysis, a scientific social synthesis. Technocracy is a challenge to youth. In actuality Technocracy will do nothing for youth; but youth will do much for Technocracy, and through Technocracy will youth achieve its greater tomorrow. Youth must arrange for its own future.

—Technocracy, Series A, Number 16

— SECTION STAMP —

The TECHNOCRAT

PUBLICATION OF TECHNOCRACY INC. • LOS ANGELES • CALIFORNIA

MAR. '54

IN THIS ISSUE:

- FREEDOM FROM TOIL
- Politics and What Not
- Surpluses
- Horsetrading
- A New Culture
- The Trade Winds
- Control by Function
- Kitty Hawk

NEWS MAGAZINE

Whole No. 169

25 CENTS

The TECHNOCRAT

MARCH, 1954

For An Engineering Job

ENGINEERS!

Technocracy makes one basic postulate: that the phenomena involved in the functional operation of a social mechanism are metrical.

The president of Westinghouse Electric Corporation recently called on the nation's engineers to play a greater role in public life and to take the lead in applying "engineering principles to our social problems."

Addressing the annual dinner meeting of the American Society of Mechanical Engineers in New York City, Gwilym A. Price said, "The engineer is not only the ideal man for this work, but also stands in an ideal position to perform it." Yet, he added, in the past the engineer has "tended to stay clear of such commitment."

Of the 48 governors, he pointed out, none is an engineer, while only two of the 96 United States Senators are of the engineering profession.

Wherever the nation's problems are physical and subject to technical solutions, they have been and can be surmounted, Mr. Price declared, adding: "Unhappily, however, many of our most dangerous problems are not physical and will not be solved by better research, high productivity, or any of the other industrial virtues. I refer to the social illnesses that afflict our age. How to cope with these is probably the most perplexing internal problem we face."

"You and other engineers hold part of the answer in your hands," he told his audience. "You have successfully applied engineering principles to industry. Now our hope lies in part in the application of those principles to our social problems."

"With all possible deference, I suggest that the engineer himself — the man who knows most about the physical facts of our world — should attempt to make that application. . . . I do not present this to you as a duty or an obligation, but rather as a challenge and an opportunity."

Because he is everywhere respected for his character, competence and record, and is welcomed by all groups, the engineer might successfully "erect a bridge between the technical and humanistic world, and bring diverse groups together into a common program as no one else is equally capable of doing."

—The International Engineer, Jan.

THIS MONTH'S COVER

Federal Noark benchboard completely controls routing of parcel post to and from three St. Louis buildings by complex conveyor system served from four federal 300 kva unit substations and control centers.

The benchboard can select any number of conveyor arrangements which are instantly indicated by illuminated routings shown in miniature.

March, 1954

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Whole No. 169

FREEDOM FROM TOIL

The days of human toil on this Continent are nearly over. North Americans are going to have a lot of free time on their hands whether they like it or not. What are you going to do with yours? We suggest you start thinking about it, for the time is near at hand.

What would you like to do with your leisure time? Maybe you think we are kidding. Maybe you still have a job (or two jobs) and don't have *any* time that you can consider as 'leisure time.' Well, we are talking to you, too, just the same. If you do not have free time, you most likely will have, and plenty of it. A few million Americans already have full time for their own use, to do with more or less as they please. They and many others may as well start getting used to it as a permanent way of life. For, in North America, the right to work for a living is due to be abrogated, never to be restored.

During the 'Dirty Thirties,' there appeared on the locked gates of the closed down factories the epitaph, 'Annie Doesn't Work Here Anymore.' But this did not carry with it a connotation of finality and irrevocability. It bore an undercurrent of hope that, someday, the factory would be humming again and that people would be working there once more. The gates were merely locked temporarily; the factory was being held intact awaiting better times to start up again.

Today, when a factory closes down, it is final. For, it means that *that* factory has become obsolete, having been superseded by a new modern factory somewhere, possibly far away, and it will never again resume its previous operations. The sign on the gate should read, 'Nobody Will Ever Work Here Again.' If it takes human labor to run a factory, that factory's days are numbered.

The people on this Continent will have more free time than any population has ever had before. What will they do with it? What will you do with yours? What would you *like to do* with it?

Will You Be Happy?

If you are somewhere near an average American, you will not be happy with your free time — if it comes to you under the Price System. For, you will find that you are not free to do very much that you want with it. Among other things, you will find yourself under considerable pressure from various sources to spend a fair share of your 'free time' looking for work. If you have a family or other dependents, they will constitute a pressure upon you to 'find a job.' The unemployment insurance and relief agencies will expect you to be "seeking work.' The neighbors will not enjoy your spending your free time in any manner that is enjoyable to you. The businessmen, politicians, and ecclesiastics will 'worry about' your not working. And, if you do not have a 'nest egg' and your unemployment compensation has run out, your personal requirements for living will irritate you into seeking some kind of income.

Tradition will be against the individual who isn't working. People have always had to do some kind of work for a living; and social morality has established that it is 'right' to work and 'wrong' to idle. Even the wealthy — those who held sufficient debt claims against the society to finance themselves for the rest of their lives — those who did not *have to* work for a living — were under pressure to do something that resembled an occupation, even if it were only an honorary chairmanship of some kind. Those among the wealthy who merely enjoyed themselves spending their fortunes were given the semi-disdainful label of 'playboys.' So, it is not going to be easy, either from the standpoint of the individual's moral concepts or from those of the society, to live without employment; at least, not until it has become more firmly established as an accepted custom.

The most serious handicap to the unemployed at present, of course, is the structure and traditions of the economic system itself. Under the Price System, you are expected to sell something for money, then use the money to buy something else. For the great bulk of the people, there is no other way to acquire the means of living and enjoying life.

Trying to Get Ahead

Until the last century or so, most people were engaged in wresting some basic material from nature — plant products, animal products, fish, minerals, fuels, or energy. These were sold for a very low price, and those who produced them were able thereby to sustain life. A much smaller number of people bought the raw materials, processed them, and sold the products for more money than they spent. Some people made their money by transporting materials from one place to another. Others merely sold, or bartered, their labor and skills. On top of these were several categories of predators, who manipulated or 'managed' the economic system to their own ad-

vantages while they contributed little or nothing to the physical wealth of the society.

As technological processes entered the fields of basic production — agriculture, mining, forestry, fishing, power — it rapidly displaced the small-scale home enterprises (to the economic advantage of the big predators). As a consequence, more and more people were forced into the labor market, with only their man-hours of effort to sell.

This was one step removed from the previous labor system, which was based upon chattel slavery. From the standpoint of the employer, the employment system was a decided improvement over outright slavery for under the employment system, the employer was not economically responsible for his hirelings. He hired only the workers he wanted, at and for the time he wanted them; and if they got sick or became incapacitated due to age or injury, or if he laid them off, he was no longer responsible for and seldom concerned with their welfare or survival. He did not have to buy, or breed and raise, new workers, as did the slave owner; nor did he have to care for them during periods of incapacity or slack periods.

There was always a sufficiency of employees available in most places where they were wanted, partly due to an increasing population and partly due to displacements resulting from more efficient means of producing the raw materials. If the local labor supply became at all intractable, cheaper and more desperate labor supplies could be brought in or enticed in. The market favored the employer and he could, and did, exploit his advantage for all that the traffic would bear. Even so, the human worker could not compete in the labor market with extraneous energy and technology, which first entered the transportation and processing industries and, later, the raw material producing industries.

Something New Has Been Added

During the first part of the Twentieth Century, a strange new condition developed in the economic system — one that had never occurred before and which would never be repeated again in the same areas. Industry had acquired the capacity to produce more than the mere requirements of human survival. It began expanding into many new lines; and many goods and services, which previously had been considered luxuries or had not existed at all, were becoming commonplace. For a while, this expansion of industry and the production of new lines of goods called for full employment of the available workers, particularly those with specialized skills; and this condition rebounded to the benefit of the workers from two directions.

First, the workers in some particular skilled line of work could form a union and bring organized pressure upon the employers for a shorter work-day, safer working conditions, higher pay, and other special benefits. Skilled workers were not easily replaced, and they often won their demands. The more efficient and larger establishments could easily afford these benefits to the workers, while the less efficient and smaller ones folded up, sold out, or merged. The standard of living among the workers began to rise, and they could afford things no worker had ever been able to afford before, and they had more time in which to do things of their own choosing.

Second, the big industrial employers tolerated this rise in the standard of living of the workers more than they might have otherwise; for, it enabled the employees to spend more money for the products of the industries. The automobile industry took the lead in establishing the eight-hour workday and the $5.00 wage. Other industries were compelled to follow this lead, with agriculture lagging far behind. This change permitted the workers to buy and operate automobiles.

This improvement in the lot of the worker did not come smoothly, however; for, certain of the workers tended to press their advantage to the point of open conflict with the employers, while the employers tended to hold stubbornly to the traditional concepts of low wages, miserable working conditions, and long hours of toil. There were many bitter fights, with the government agencies (particularly the local agencies) and self-appointed usurpers of government powers (vigilantes, legionnaires, etc.) usually siding with the employers. It was a time of change and conditions were changing as well as the rules.

Getting Rid of the Payrolls

In the long-term view, the trend was against Labor. The chances for industrial survival and profits were greatest among those industries which were most successful in cutting labor costs. The utmost in the elimination of labor costs could be achieved with automaticity and large-scale production. In order for an industry to maximize its production and at the same time minimize its unit costs, it was expedient to install whole new plants, often at a cost of millions — sometimes hundreds of millions — of dollars. But, once such a plant was built and operating, its capacity was so huge that the nation could afford to have only a few of them — perhaps only one in certain lines — and, even then, they could not be permitted to run wide open for any continuous length of time. It has been demonstrated that whole new plants — or large departments of plants — can be made to operate with only one man in attendance, and he really isn't needed most of the time.

The human worker is fast being abolished as an essential item in the operations of the physical factors in the society; yet, the Price System continues to demand that man must work in order to make a living.

When Labor leaves the factories, of course, Management also leaves. The problems of both Management and Labor are abolished by the installation of automatic technology which eliminates both of them.

Generally speaking, there is a human urge to get the most for the least. The worker wants the most wages for the least work. The young woman wants to marry 'well,' so she will have more with less ef-

(Continued on Page 9)

POLITICS -- and What Not

As the year 1954 gets under way, it promises to be a memorable one. Whether for weal or for woe, depends upon individual interpretation.

The Administration points with pride to its economy measures, its Korean peace, its promising business outlook, foreign trade agreements and its project to develop atomic power for constructive purposes (via Westinghouse).

Oh, yes, they are going to solve the farmer's problems. In order to make a living on a farm nowadays, it must be mechanized. While farm prices have tumbled, the price of farm equipment and farm wages remain high. Middle men extract a healthy slice of his selling price. Stock raising or dirt farming, it's the same story. Price is the stumbling block between production and distribution.

Mr. Benson, head of a dairy cooperative, opined a few years ago that 'we farmers' must incorporate to save our free enterprise. Now, as Secretary of Agriculture, however, he would like to return agriculture to the rugged individualism he believes is good for the farmers' souls, but which farmers know to be fatal to their pocket books. A 'free market' of the kind Mr. Benson seems to favor is utterly impossible in a world of giant corporations.

Farmers did jolt the complacency of the year-old administration by way of the ballot box last November, and caused a hurried mending of political fences, and a reconsideration of problems facing agriculture.

The administration is against government being in business in competition with business. It's all very confusing, for government is Big Business and Big Business is government. Every big corporation is well represented in all departments of our government. The new commission called 'Business and Defense Services Administration' is made up of men from giant corporations, who have been given the power to allocate essential supplies, award prime contracts, and authorize rapid tax amortization. Federal Trade Commission, whose duty it is to enforce anti-trust laws, is composed of lawyers so closely allied with industrial giants, that its original purpose has become defeated.

Small business has had a rugged time of it, for though enterprise is free, essential supplies were all too often allocated elsewhere.

If a favorable political climate seems evident, Congress will soon be asked to turn all government-owned utilities over to private companies. As soon as they reach a paying basis, let corporations take over, raise the rates, and poor old Uno Who gets stung twice in the same place.

Yes, one would think the Big Boys have all the cards in their favor. But there is a sizeable fly in the ointment. They have produced more and more in such quantities that they can't dispose of it all. Inventories are piling up; there aren't enough consumers with sufficient buying power to absorb the stock piles.

Yes, there is plenty of everything for every one, but the plenty doesn't get distributed. Why? Because there is a price tag on everything and unless you have the price (or the credit) you can't buy it. A startlingly large percentage of families in this land of plenty subsist on far below the accepted standard required for decent living. We have all read of or seen conditions in slum districts, but one doesn't even have to go to the slums to find many with inadequate housing, clothing or nourishment.

One of the biggest headaches in this country now is the problem of education. Here the Price System shows its complete inability to solve it. In one city for instance (Salt Lake) there is a necessity for a 3 way stretch, due mostly to a substantial increase in the birthrate the last few years. The first stretch is, the increase in number of children entering school; the second stretch, not enough teachers to teach them; and third, not enough schools to school them. School census enumerates 15,995 babies under 3 years of age, compared with only 7,717 children now 15-17 years of age. Facilities and personnel to handle even these are already inadequate. When the almost 16,000 are ready for Junior High School, it will swell enrollments 93 percent over the present total at that age level. It's found that teachers' wages here do not compare favorably with some neighbor states, so the best qualified often accept positions elsewhere. Because business courses offer greater financial and other inducements, there are far fewer college students preparing for careers as teachers. There just isn't enough money to build enough schools to properly accommodate large increases in population. In out-of-the-way portions of the state, some towns have no school house at all; pupils must ride busses to neighboring towns. Taxation is inadequate, for people are taxed to the limit of endurance already. The Governor says, 'Let the churches provide the education' but that is hardly feasible or advisable. We have the children to be educated, we have the essential materials for school houses, but the same old dragon, Price, rears its head and says 'no!'

Since the Price System is a relic of the days when there was actual scarcity of goods and services, it is definitely out of place in an age of abundance. Notwithstanding the frantic efforts of a minority to maintain their advantage, certain trends indicate the eventual collapse of the Price System.

The abundance they cannot distribute, and the accelerating rate of replacement of man hours by kilowatt hours, is the combination that is already tilting the applecart. Thus the working man will be sooner or later released by electronic and supersonic devices, from repetitious work. This is an actuality that must be faced. It could be interpreted as threat of general unemployment and depression or, with Technocracy's yard stick, as a natural development, ushering in a new social order, a government of function. The transition may be accomplished peacefully. It will not be brought into existence with force of arms, but with ideas and scientific facts, reaching the understanding of intelligent people.

Technocracy invites investigation of its design for an abundance balanced with distribution of its goods and services, without price, to all citizens of North America.

Infinite possibilities, still undreamed of, await exploration. Through research, the pioneering 'Spirit of Man' may venture into this vast unknown field and find more thrills out of converting these intangibles into realities for the betterment of mankind than is now expended in excessive speed and lawlessness.

Time is running out. Investigate and join Technocracy. Prepare your self for the happy landing in the New America. —Henriette Phillips, 11140-1

Insecticides Are Toxic

United States Department of Agriculture, Washington, Dec. 30, 1953 — *Persistence of toxic effects on plants* from certain commonly used organic insecticides for as long as eight years after application in some soils was reported today to the American Association for the Advancement of Science by A. C. Foster, plant pathologist of the Agricultural Research Service in the U. S. Department of Agriculture.

In tests carried on at the Plant Industry Station, Beltsville, Md., Foster reported finding wide variations in the persistence of different insecticides, with variations also attributable to the type of soil. Different crops and even varieties also showed a wide range of sensitivity and tolerance to the materials. In the case of DDT, for example, the scientist reported Abruzzi rye and Stringless Black Valentine bean to be highly sensitive. Wheat and corn varieties tested, however, were found to be quite tolerant to large amounts of this material.

Compounds included in the studies carried on in greenhouses, coldframes, and fields were DDT, benzine hexachloride, toxaphene, chlordane, heptachlor, lindane, aldrin, dieldrin, endrin, isodrin, rothane, methoxychlor, CS-708, and certain chemical variants or isomers of DDT, BHC, and chlordane.

Studies in the greenhouse benches, Foster said, showed DDT and the related compounds rothane and methoxychlor to be among the most persistent followed by dieldrin and toxaphene. Chlordane, aldrin, BHC and lindane were less persistent.

DDT mixed in Chester, Sassafras, Evesboro, and a muck soil in coldframes at 25, 100, 400, and 1,000 pounds per acre in 1945 persisted from 70 to nearly 90 percent after 8 years. In some other soils high in iron and clay, and having low acidity as shown by a high pH, DDT was found less persistent.

In the Chester, Sassafras, Evesboro, and muck soil, doses of 100 pounds or higher of DDT were still toxic to sensitive crops after 8 years. DDT containing impurities was found to be much more toxic than the pure chemical.

"The relative tendency of the organic insecticides tested to accumulate in soils following their application to foliage in simulated spray schedules," Foster said, "is roughly the same as the persistence of heavy single doses. *Heavy applications of DDT in a fruit spray schedule for three years resulted in accumulations under the trees great enough to interfere with growth of rye as a winter cover crop.*

"BHC and lindane were found to be the least stable in the soils studied, but small amounts of either of these may impair the quality of many crops grown in contaminated soils. Preliminary data indicate that endrin ranks with DDT in persistence, and isodrin is intermediate."

In the greenhouse studies, aldrin, dieldrin, BHC and lindane were most generally toxic to a diversity of crop plants, pound for pound, during 1 to 3 years following single massive doses to the soils. Beans were sensitive to more different substances than cereals and most other crops tested.

Technological Social Security?

Federation News, Jan. 16 — While most attention is being paid to unemployment because of failing business conditions, one New York employer has suggested a special plan for technological changes in industry.

Victor Borella, Rockefeller Center vice-president in charge of operations, told the Washington Chapter of the Industrial Relations Research Association that unemployment compensation benefits should be adapted to handle the problem, perhaps like this:

If the worker is over 45 and has been employed in that particular industry for at least 10 years, and then lost his job through changes in industrial processes, he would be entitled to unemployment insurance until he is 65 or until he lands another job.

At 65 he would be eligible for social security retirement pay.

If the wage-earner is over 35 but under 45, he would be given jobless pay benefits for a longer period than the normal limited period. The theory would be that because of his comparative youth he'd be more likely to find a new trade or job.

SURPLUSES

Aching . . .

Farm Journal, November, 1953 — Ever try to put an oversize pillow into an undersize suitcase? If you did, you can understand part of what acreage restriction brings about.

The acres that are quota-ed out of wheat, cotton, or corn will not lie unused. They will be planted to something else. (See Dowling's cartoon). The supply of that something else will be increased in relation to demand; thus new aches may develop. The pressure of "surplus" will merely be shifted.

Push the surplus in here, and it will burst out there. And, then, if they plant fewer acres of restricted crops, farmers will (and for that matter, should) try to make each allotted acre yield more.

This is merely a negative comment — a reminder that whatever kind of farm program is evolved, salvation won't be found in artificial acreage controls. And that whatever happens in one sector of agriculture affects all others.

Increasing . . .

Tampa, Tribune, Nov. 29, '53 (Pahokee, Fla.)— The 1953-54 sweet corn crops of the important Lake Okeechobee section of the Everglades started rolling to market this week, both by rail and giant trucks.

. . . The production of sweet corn as a leading major crop in the Everglades is comparatively recent, as only a few years ago snap beans were the principal crop raised there. However, it takes longer to produce sweet corn than beans. Corn matures in 65 to 70 days in the fall; 90 to 110 in the winter, and 72 to 75 in the spring, while beans can be grown in this section in six weeks.

In 1947 there was a total of 63 cars of sweet corn shipped from the whole Everglades, according to a report of the Federal-State Market News Service. In 1952, only five years later, there were around 4349 cars of sweet corn shipped from the Glades. Last year's sweet corn acreage in this section totaled 18,500 acres.

The rich, lush, brownish-black mucklands of the Glades grow exceptionally "sweet" sweet corn. Ultra-modern precooling plants quickly preserve the high sugar content and tenderness of the corn.

. . . Geneticists have made great strides in producing hybrids of sweet corn that are successful in the Glades. This work has been done by the *Everglades Experiment Station* of *Belle Glade*, and by corn breeders of other areas in connection with local scientists and farmers.

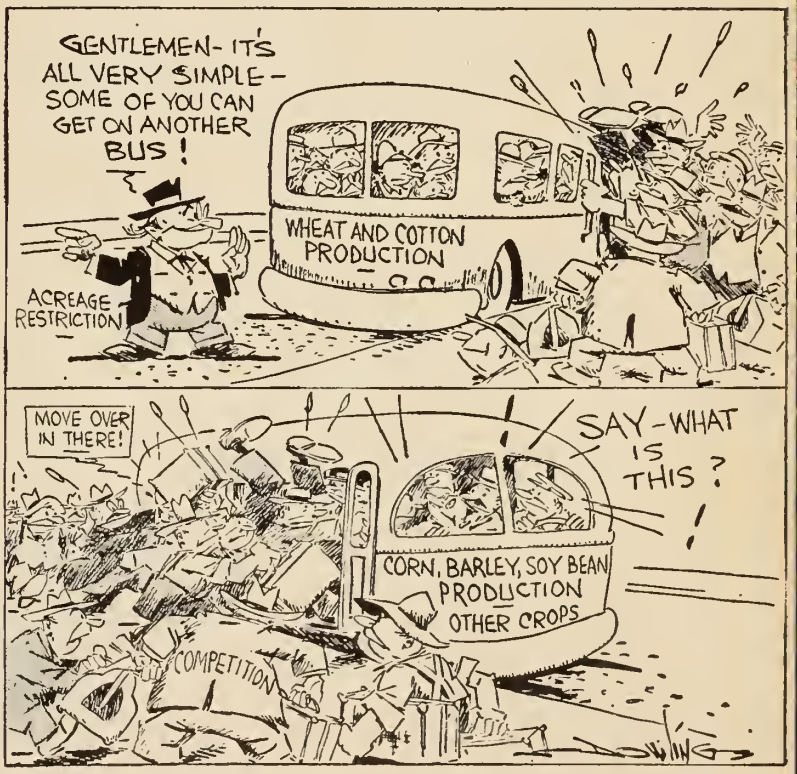
Golden Security is one of the most prevalent hybrids grown in this section; also, the Gold Rush and others. Yields average from 125 to 175 crates per acre. . . .

. . . The most modern machinery is used for planting, cultivating and harvesting Glades sweet corn. Sweet corn harvesting machines are especially built for the growers of this area.

The pullers throw the ears of corn on the belt of the machine's wings, or arms, that reach out into the corn field rows. The ears are then conveyed to the central portion of the machine where highly trained laborers assort and pack the corn according to grade.

About 60 persons are employed in the operation and the machine travels around two miles per hour, never stopping as a truck follows behind to carry the corn immediately to the cooler.

In this manner sweet corn can be harvested and precooled within an hour, or hour and a half, thus preserving its high content of sugar. . . .


GENTLEMEN- IT'S ALL VERY SIMPLE - SOME OF YOU CAN GET ON ANOTHER BUS !
WHEAT AND COTTON PRODUCTION
ACREAGE RESTRICTION
MOVE OVER IN THERE!
SAY - WHAT IS THIS ?
CORN, BARLEY, SOY BEAN PRODUCTION OTHER CROPS
COMPETITION

Suffocating . . .

Farm Journal, January, 1954 — Here are some sobering figures to consider while making up your mind about the price support levels and the kind of farm plan you favor.

BUTTER — We started buying butter just a year ago this month. Already we have 238 million pounds — 61 percent more than in any previous November.

How much butter is that? Enough to last the nation 68 days.

What's the effect? Merchants have stopped making any really effective effort to push butter sales. What if the manufacturers don't get their price? They can sell to the government. So why spend big money in advertising?

CORN — The government owns 454 million bushels more than any previous November. About 200 million bushels of this is 1948 and 1949 corn. We have 57 percent larger carry-over of old corn than in '52.

What can the government do with this old corn? For several months it has been easing two to three million bushels a week into the market. Even this amount has depressed corn prices.

"These lower prices during liquidation of government-held stocks are just one of the costs that farmers pay for price supports," said University of Illinois economist L. J. Norton, speaking recently before the American Society of Farm Managers and Rural Appraisers.

Norton points out that at this rate it will take nearly two years for the CCC to sell all of its four-to-five-year-old corn. Meanwhile, the government will have the corn on hand from the intervening years.

This is not a pretty prospect, especially since it appears that we're headed for the largest government tie-up of corn in history.

CHEESE — In November the government owned nearly 261 million pounds of it. That's just about three times as much as they've owned in any other November, and enough cheese to keep the nation supplied for 79 days.

But we'll go right on making cheese. If the merchants don't sell it, the manufacturers can turn it over to the government.

WHEAT — Last January the government owned 127 million bushels. Now they own 428 million bushels — half again more than they've ever owned in any previous November.

That raises the perplexing question: what chance have we of using this wheat? It's 40 percent of a year's supply, and comes at a time when there's already more wheat in the country than ever before — an eighth more than the previous record. World stocks are also up.

DRIED MILK — If the nation's dried milk plants closed down on January 1, they wouldn't need to open up again until July 8. The government could take care of all our needs from its stocks.

COTTONSEED OIL — Last January we had 407 million pounds; in November the government was swimming in 814 million pounds of this oil.

Your share would be about five pounds. Normally, we use less than 10 pounds a year per person.

What's going to happen to this sea of oil? That's something the government would like to know, too. There's no shortage of cottonseed oil, and none appears likely. "The cottonseed industry will suffer from this for many years," concludes economist Norton.

ALL SUPPORTS — The government's investment in price supports has more than doubled in the last year. This is the fastest build-up in the history of farm supports.

Twice before our farm program was almost overwhelmed by government surpluses. World War II, then the Korean War, bailed us out. No one wants this solution again.

What about the rest of the world? Aren't other countries hungry for our farm products? "This erroneous opinion, held by many farmers and some farm leaders, is simply not true," maintains Norton. He points out that since 1947 there has been a remarkable increase in world output. In general, the world has a lot of the foods we have for sale, and it doesn't make good economic or political sense to start cut-rate dumping.

The Rewards of Research

United States Department of Agriculture, Washington, Dec. 29, 1953 — High-quality, uniform, easy peeling potatoes for the housewife; disease-and-insect-resistant, high yielding potatoes for the farmer are among benefits accruing from 43 years of breeding research carried on by the U. S. Department of Agriculture and reported today at the annual meeting of the American Association for the Advancement of Science in Boston, Mass.

In a paper prepared for the association's section on agriculture, Dr. F. J. Stevenson of the Department's Agricultural Research Service reviewed the part that potato breeding has played in boosting national average per acre potato yields 250 percent — from 94 bushels per acre in 1910, when potato breeding research was started, to nearly 250 bushels today. Other factors, such as insect control, also have been important in this big advance. It would be safe to predict, he said, that the national average yield per acre may go as high as 300 or more bushels by 1973.

About 40 new potato varieties have been distributed to American growers since 1932, Dr. Stevenson reported. Of these, acreage of 23 varieties was listed in 1952 for certification in the production of seed stock for planting by farmers. . . .

Freedom from Toil

(Continued from Page 4)

fort. The businessman wants the most profits with the least expenditure of money for supplies and labor. The moral hypothesis that people prefer to give more to the economic system than they take from it is not supported by observed facts. Rather, the more one takes from the system relative to what he puts into it, the greater his satisfaction and the more prestige he has among the neighbors.

Because of the social rewards, as well as the economic rewards, that go with successful chiseling under the Price System, there develops a vicious struggle among individuals and groups to get more and more out of the system. The big winners are those who succeed in acquiring the major means of production, or of financial manipulation, and are able to cut costs. The item in cost-cutting that receives top priority is the payroll of the employees. And employees are most effectively dispensed with by means of installing technological automaticity.

The technique of 'getting ahead' through dispensing with human employees, however, is self-defeating in time. For one thing, it concentrates too much of the wealth from production into a few hands and curtails the opportunity for economic enhancement for too many people. The capacity to produce outruns the capacity to distribute, and the system tends to run into an impasse. Eventually, the people will be compelled, from self-interest and necessity, to take over and operate the means of production for their mutual advantage.

Somewhat analogous conditions have developed in the past, but with major differences in both the causes and the effects. Under conditions of scarcity, when mal-distribution occurred in a society, the taking over by the people usually was accomplished by means of political action or civil war, or both. Following this, some form of a democratic, socialistic, or communistic political government was installed to administer the people's affairs. But, since democracy, socialism, and communism all retained the economic and political forms and mechanics of the Price System, they were subject to all the subversion and double-crossing that is inherent in the Price System. The people who fought and bled for the change seldom benefited for long. The social change was never developed to the full extent of its potential. The politicians soon 'took over' from the people and a new aristocracy again rose to wealth and power. No better examples of this sequence of events can be found than those preceeding and following the French Revolution at the end of the 18th Century and the more recent Chinese Revolution under Sun Yat Sen. In these instances, Napoleon Bonaparte and Chiang Kai-shek, respectively, were the agents that double-crossed the revolution — thereby to become the beloved heroes of all reactionaries. (The English-speaking people have had no genuine revolution in the last thousand years, so their history has no examples to offer.)

Contrary to this, an economy of abundance cannot be administered by either business or politics, and the control of the social affairs would be very different from any that have existed under the Price System. Without the structure and operating characteristics of the Price System — of business and politics — the incentives and opportunities of chiseling would be eliminated. The social system would *have to be* administered by functional coordinators for the benefit of all citizens; for, if it were designed to produce and distribute abundance, it would permit nothing else. For the first time, the social needs, more than the incentives and whims of the 'managers,' would specify the kind and amount of production and its places of distribution. Without an opportunity to make money or a risk of losing money, and with social prestige deriving only from a high standard of function, the economy of abundance will have flowlines and results that are far different from those of Price System economies of scarcity.

One of the results will be Freedom from Toil for the entire population. No pretense will be made about 'earning a living.' The products of the Area will be the heritage of the people living on that Area. The more they produce, the more they shall have; and the easier they produce it, the less effort they will have to expend and the more time they will have, to do with as they choose. Since particular attention will be devoted to eliminating man-hours of effort and vigilance, the total human effort will be small compared to that of any past society. The simplest way of allocating the necessary human effort among the population is an equal division of the 'work' among all the people, male and female alike, on a man-hour basis. As a consequence, more than 98 percent of one's lifetime will be spent away from his or her functional occupation in the society. Even during the period of active functioning, 95 percent of one's time will be spent away from the job. Thus, you will have plenty of time to allocate to personal interests.

Time to Retire?

Today, under the Price System, middle-aged people look forward to the time when they can retire and do the things they've always wanted to do. When the time arrives, they learn that they have been in the employment rut so long that they cannot adjust easily to leisure. They have not developed or kept alive any interest that attracts their attention and consumes their time. They are too old and lack the vitality to do the things they thought they would like to do — things that were postponed from younger years. One frequently hears the lament among the retired, 'Oh, if I could just go back to work for a few days!'

In a Technocracy, people will not look forward to leisure, as such; for, 'leisure,' being the opposite of 'toil,' will lose its meaning and connotations, along with those of toil. In early life, individuals can develop long-term interests that they can keep alive and active throughout their lives. Having much time

(Continued on Page 16)

SCIENCE in the NEWS

EDITOR'S NOTE: The staff of The TECHNOCRAT has selected some of the latest information and developments in technological advancement, discoveries, and inventions which are responsible in changing our way of life from a system of scarcity to an economy of abundance. As the impact of technology descends upon the Price System, bringing with it an ever increasing rate of social change, the result will be a non-operative economy, unless we, the American people, have the intelligence to demand the application of science as a method of social operation.

"Dopie" Doesn't Doze

Daily News, Los Angeles, Jan. 18 — The Machine Age has taken another giant step toward Utopian perfection — wherein none of us will have a job — by development of "Dopie" an electronic gadget that can do routine factory work better than human beings.

Dopie is an electronic brain which has the I. Q. of a high-grade moron.

It was invented by physicist G. M. Giannini, president of the G. M. Giannini & Co., of Pasadena, manufacturer of automatic controls for guided missiles and pilotless airplanes.

The birth of "Dopie" was announced in New York yesterday.

It will do the "drudgery" work in mechanized industry. It can regulate speed of machinery, keep temperatures constant in chemical industries, cry a loud alarm when complicated mixtures are a single iota wrong, flaws transmitted to it by X-ray.

But these are only a few of "Dopie's" accomplishments; it can eliminate a lot of people who are now paid to watch such things from payrolls.

"Dopie" is an electronic computer of a new helot type. Heretofore, all effort has been to develop computers of ever greater complexity and thus giving the higher mathematician and statistician jitters about his job.

But now it's the working stiff's turn, said Giannini.

We created a machine just intelligent enough to do the job of weighing, batching and temperature control. We are sending out a boy to do a boy's job.

All previous computers, he said, have been too "intelligent" for the demands of industrial process control. "Dopie" costs only $1000, never asks for a raise, has a long life expectancy, no unemployment insurance and with decent treatment is never sick.

Dow's Midland Division represents the latest developments in chemical plant engineering and construction. . . .

operating almost exclusively by "remote control" by means of unit panels shown above.

Machines Get Neurotic

Los Angeles Herald & Express, Jan. 19 — Machines which man created to do some of his jobs are being studied by a group of University of Chicago scientists to find out how man behaves.

James Grier Miller, chairman of the department of psychology at the University of Chicago, told Town Hall in the Biltmore today about the studies and said that if they were successful a theory of human behavior may evolve which will allow them to recognize similarities between persons, groups, large companies, the government and even the United Nations.

"Not only are machines being modified to fit man, but they are also being developed as models of human behavior, capable of imitating or surpassing many of the mental characteristics of human beings."

Describing many of the electronic brains, some of which can even play chess together, the professor added:

"Machines have even been built which develop neurotic indecision or illustrate complex emotional behavior much like that seen in certain mental illnesses."

The behavioral scientists in Chicago by studying these machines are working toward the development of a general behavior theory to be used as a basis for understanding and predicting human actions.

One Ton — Six Seconds

Hamilton Spectator, Dec. 9 (Sydney, N. S.)—A mechanical monster that can chew enough coal out of the earth in a minute to heat two homes for a winter is being watched here as the possible salvation of Nova Scotia's ailing coal industry.

The Dosco Miner basically is a machine which cuts the coal and loads it automatically onto conveyor belts taking it to the pit head.

It was designed to mine and load about 500 tons during an eight-hour shift. The record out-put for eight hours so far is 587 tons. The peak production for a shorter period is one ton in six seconds — or about 10 tons a minute.

Company officials say comparing these figures with the production per man at manual mining does not give an accurate picture because of various other factors, mainly that no mine has yet switched completely to mechanical miners. But falling production has been plaguing the industry for years. Production per man-shift in 1939 was 2.7 tons. Later figures are not available.

Seven men are required to keep a Dosco Miner operating. Two are operators, three timbermen shore up the roof, and one is a mechanic. The seventh man is foreman.

The machine itself is electrically-driven and hydraulically operated.

Political Americana . . .

HORSETRADING

The Pork Barrel

In the bayou country near this village of Torras, Louisiana, the mighty Mississippi is flirting with a new route to the sea.

The river shows unmistakable interest in taking a more direct path to the Gulf of Mexico, 100 miles due south of here, instead of meandering along its present twisting 300-mile channel past Baton Rouge and New Orleans.

Plans for frustrating this wanderlust may make strange political bedfellows in the new session of Congress, now starting its deliberations in Washington. Some Mississippi valley legislators have agreed privately to support plans for a Federally-sponsored St. Lawrence Seaway, a measure they've heartily opposed in the past. In return, they'll expect lawmakers from northern and mid-western states to show enthusiasm for new appropriations to keep the Mississippi rolling along its present course.

A bill to create a St. Lawrence Seaway development corporation already has been reported out favorably by the Senate foreign relations committee and is slated for early attention in both the House and the Senate.

Meanwhile, legislators from the Mississippi valley area will begin plugging for Federal funds to build new dams, dikes and spillways near this community, to hold the river in its existing channel. In this effort, they'll have the support of the Army's Corps of Engineers, which is seldom at a loss for programs to keep its construction crews busy. The Engineers already have drawn up a "diversion control" program, estimated to cost $75 million.

. . . Whether this control program will be authorized depends partly on the log-rolling abilities of Mississippi valley congressmen as the new legislative session gets under way in Washington. It's also linked to the degree of urgency the Eisenhower administration attaches to the St. Lawrence project.

The first public display of Southern affection for the St. Lawrence Seaway came late last November, at the annual meeting of the Mississippi Valley Flood Control Association in New Orleans. Rep. Otto E. Passman (La.) who is also association president, came out flatly in favor of the St. Lawrence program.

"The South can't expect Congress to authorize bills benefiting the Mississippi Valley while Southern members oppose the St. Lawrence Seaway," were his unfamiliar words. He added that the ports of New Orleans and Baton Rouge "may discover they will not really be adversely affected by the Seaway."

. . . The Mississippi valley legislators still have much political spadework cut out for them. They must do a selling job to other Congressmen on the urgency of keeping the Mississippi in its present channel, and then they must make a convincing case that money for doing so should be forthcoming at a time when the Administration is trying to clamp a lid on Government spending of all kinds. Lately, many members of Congress have been suggesting no new authorizations for river works should be okayed in the next few years.

. . . How much of a political football the new Mississippi project may become is hard to foretell now. And it's not yet clear how many Southern votes have been marshaled for St. Lawrence seaway legislation. The Mississippi Valley Flood Control Association hopes for early Congressional hearings on the diversion matter, and is counting on active support from Army engineers. Maj. Gen. Samuel D. Sturgis, Jr., chief of Army engineers in Washington, has told a group of New Orleans businessmen the diversion-control plan has "top priority" in his book. . . .

—Wall St. Journal

Political Punches

Labor, Dec. 26, 1953 — A news report says: "A sample of what the Democrats can expect in the way of political fire from the Republican Party has been provided by Governor Thomas E. Dewey of New York, speaking at a $100-a-plate Republican dinner." Among other things, Dewey said:

"Whenever anyone mentions the words Truman and Democrat to you, remember that those words are synonymous with Americans dying, thousands of miles from home, because they did not have ammunition to defend themselves."

If that's a fair "sample," Dewey and other GOP speakers in next year's election campaign aren't going to pay much attention to the truth. No evidence has ever been presented that a single American soldier died in Korea for lack of ammunition.

In the Korean war, American forces fired more artillery ammunition than they did in the entire European part of the Second World War, which was by far the biggest war in history. It would be much more true to say they used ammunition recklessly, rather than that they died for lack of it.

In the past session of Congress there were some charges that, although Uncle Sam's soldiers never were short of ammunition in the front lines, their ammunition "reserves" behind the lines sometimes fell to lower levels than might be needed if the Korean War turned into a Third World War.

Perhaps someone should be blamed for that, but it hardly justifies Dewey's "whopper."

Apparently the voters in the next year are going to be given a heavy diet of such Dewey-Brownell-McCarthy "big lie" accusations to draw their attention away from the real issues facing the nation.

Whose Investments?

Los Angeles Times, November 30, 1953 (Seoul, Korea) — Newly discovered mineral resources in Korea make it probable that the nation can become self-supporting within a few years, an American engineering expert said.

Frank A. Crampton, 66, Palo Alto, Calif., who came out of retirement to aid the Korean government on engineering problems, said mineral exports could be stepped up to $200,000,000 a year within two years.

Korea is a major American supplier of tungsten, an essential defense metal. Its Sang Dong mine on the East coast is the biggest tungsten mine in the world.

Last year the Sang Dong mine (north of the 38th parallel) and 57 others in South Korea produced 280 tons of tungsten concentrate a month — at $3300 a ton. This was the nation's only important export.

By September, 1953, Korean engineers were producing 800 tons of concentrates a month, and by the end of this year exports will be hitting a $36,000,000 a year pace, Crampton predicted.

There are hopes of boosting this to $60,000,000 by the end of 1954.

Japanese geologists found Korea's barren hills loaded with mineral deposits, but extraction was costly because of inaccessible locations and lack of machinery.

American experts who made surveys after 1945 agreed. It was assumed the nation never could be self supporting and would have to rely almost entirely on rice exports for foreign exchange.

New developments have changed this view, Crampton said. Here are some of them:

TIN: A new deposit discovered last May at Ulchin, on the east coast, may turn out to be one of the world's biggest. Some assay samples ran 32% tin. The average was from 8 to 10%. Tin has long been a shortage item, and is rigidly controlled by world cartels.

MANGANESE: Only 600 tons a month is being produced. The Japanese took 3000 tons a month from one mine alone. The mines need new machinery.

GOLD: The more than 60 mines could produce $15,000,000 a year.

Recently a Korean caused excitement in Seoul by displaying samples of pitch-blende — the ore from which radium and a whole series of radio-active minerals, including uranium, are extracted. He would not locate the deposit, but said it was within 20 miles of Seoul.

Vested Interest In Misery

Labor, Dec. 26, 1953 — New light was thrown on some of the shocking slum conditions in the Nation's capital this week by a hearing before a subcommittee of the Senate judiciary committee. The hearing dealt with some of the causes of juvenile delinquency.

Dixon Court, not far from the capitol itself, was in the spotlight. The evidence of human misery was appalling.

Testimony showed the area is a major source of crime. Of 357 arrests in Dixon Court in the last five years, 38 involved children and the charges ranged from truancy to murder.

Fifty-nine adults and 52 children are crowded into 41 dilapidated dwellings. One witness said that "at least 50 percent of the child population is illegitimate."

Photographs showed the terrible conditions of the dwellings, inside and out. They have no running water, gas or electricity. Toilets are in the backyards, along with the "community" hydrants which supply water.

A former District of Columbia police official, Jeremiah A. Sullivan, was revealed as the owner of 10 of these "subhuman dwellings." He bought them for a song a few years ago and has just sold them to the Redevelopment Land Agency, which is attempting to wipe out some of Washington's worst slums. The price he received was not disclosed.

Shocked by all of this, Senator Thomas C. Hennings, a member of the subcommittee, asked Sullivan if his "sleep was undisturbed and tranquil."

Sullivan calmly said that it never bothered his conscience. Apparently he was interested only in the rentals, which were collected and turned over to him by one of the tenants.

Another of the Dixon Court owners is a young man who "makes a living renting out slum houses." The fact that he has a 1953 Cadillac automobile illustrates how profitable this is.

The hearing also disclosed juvenile delinquency in Washington on a widespread scale, including drinking orgies by both boys and girls.

"I've never seen a situation like this before," said one of the subcommittee's investigators, Anthony Lacaire, a Massachusetts policeman.

CHANGE OF ADDRESS

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The RESEARCH BULLETIN

NEWS ITEMS OF SIGNIFICANCE QUOTED FROM THE NATION'S PRESS

Automatic Weatherman

Los Angeles Times, Washington, Nov. 30 — One of these days when it snows instead of clearing, the weatherman is going to snap back:

"Send for the repair man — the machine is on the fritz."

For the U. S. Weather Bureau is taking on a high-speed electronic computer in an effort to speed up and make more accurate weather forecasting.

The high-speed machine will bypass the human equation in weather predicting. It will take mathematical equations. In 90 minutes it will turn out a mathematical answer from which meteorologists will be able to read temperatures, cloudiness, precipitation, or whatever is going to happen weatherwise.

If a skilled mathematician tried to solve the numerical data fed through the wires and tubes of the modern computer he would be at the job seven years. Or that's what the experts in such things would have you believe.

Actual operation and forecasting from the new weather wizard is at least a year away. But within a few weeks the Weather Bureau expects to select the type of computer it wants. It doesn't want one that will be obsolete by the time it gets to whirring through its weather paces.

The machine will be leased from one of the big computer manufacturers. This will reduce the cost to approximately $200,000 a year. To buy one outright might run $1,000,000 or more. The Weather Bureau budget will carry the recommendation to get the needed funds which the next session of Congress must approve.

The machine will be a three-layer job. That means, says Dr. Harry Wexler, chief of the Weather Bureau's Scientific Research Division, that the atmosphere will be divided into three layers. From each of these layers average conditions are gathered by present methods, including radio sound. From this material numerical equations are worked out to be fed into the machine.

The result is interpreted in terms of pressure areas or the isobars to be seen on a weather map. These are the high-pressure areas, around which winds move clockwise, and the low-pressure areas, around which winds move counter-clockwise.

From these pressure areas, the weatherman is able to make his predictions, whether it will be sunny and warm, clear and colder, snow changing to sleet, etc.

In effect, the meteorologists create a mathematical model of the atmosphere. This mathematical model is transplanted into mathematical equations on which the machine feeds.

The Institute of Advanced Studies is working on a six-layer job. This will, it is hoped, enable the production of more precise information because it will get greater and more detailed reports on atmosphere conditions.

But the three-layer machine will give pressure areas 36 hours or more in advance of what is now possible and enable the Weather Bureau experts to speed up their forecasting.

Dr. Daniel Rex of the Office of Naval Aerology said, "The advent of practical numerical weather prediction promises to revolutionize contemporary meteorological practice to an extent comparable with that produced by the general acceptance of the Norwegian wave cyclone theory."

This theory deals generally with cold and warm weather fronts. It holds that waves are initiated and developed on the interface between a colder and a warmer air mass. The meteorologists call this interface a front.

Costs Reduced

University of California, Davis, Dec. 31, 1953 — Spray-curing and direct combining can cut costs of harvesting ladino clover and increase profits to farmers.

Spray-curing costs about $5 per acre, according to Philip R. Bunelle, lecturer in agricultural engineering, and Luther G. Jones, associate specialist in the Agricultural Experiment Station on the Davis campus of the University of California. Labor requirements for harvesting are two to four man-hours per acre.

This can be compared to the high cost of harvesting by conventional methods up to 20 cents per pound, which includes a labor requirement of 7 to 12 man-hours per acre.

This year's drop in ladino clover seed prices — from a dollar to forty cents per pound — emphasizes the need for high per-acre yields and low production costs.

For spray-curing, general dinitros, oil dinitro, P.C.U. with oil, and other products are used to dry out the crop before harvest. A day or two after application, the clover is harvested directly with a slightly modified combine, thus making possible a

sizable reduction in equipment needed. The overhead or depreciation costs on the combine for spray-cured crops can be further reduced by using the machine to harvest other crops — barley, wheat, safflower, sudangrass, or milo.

Equipment needed for conventional harvesting includes one or two mowers and vacuum pickups, two to four tractors, three to five vans, and a thresher or combine, which is often much modified.

When correct farming practices are used to grow the crop, and the combine is properly adjusted and operated, losses from harvesting spray-cured clover may be as low as 5 percent, about the same as for conventional methods. The greater part of the loss is the failure of the combine to pick up all of the seed heads.

Science Aids Agriculture

United States Department of Agriculture, Washington, Dec. 28, 1953 — Greater use of available improved agriculture production techniques in areas of the world where the need for food is greatest would go far in alleviating much of the hunger in the world, a U. S. Department of Agriculture scientist said Sunday (December 27) in opening a general symposium of the American Association for the Advancement of Science in Boston, Mass.

. . . More maize, the third greatest cereal food, is being produced on less land than ever before — the result of research development of hybrid corn in the 1930's. Since 1930 the area planted to maize has been reduced by 2½ million acres. On the other hand, annual production has risen by 23 million metric tons.

As in the case of maize, Dr. Quisenberry expects the wide application of recent research findings concerning potatoes, beans and soybeans to improve the future prospects of these three basic foods. Potato production per acre has practically doubled in the U. S. during the last 15 years, largely because of the development of disease-resistant varieties and improved insect control. Much of this research has application in Europe where 80 percent of the world's potatoes are grown. The potato crop is under the continual threat of several diseases. Any one of them could eliminate the potato as a leading food crop of North America.

Beans likewise reflect the application of research findings in the United States where per acre production is 40 percent above that of other important bean-growing countries. Twenty years of American research have adapted the ancient Asian food and oil crop, soybean, to the United States, which today produces well over a third of the world's supply. Development of soybean varieties adapted to the soils and climate of central United States, increase of oil content, and improvement in suitability to machine production has been responsible for the shifting emphasis to this crop. In 1929 there were less than 2½ million acres of soybeans in the United States; today's acreage totals 15 million. . . .

More Automaticity

Los Angeles Times, Dec. 1, 1953 — Now they've come up with elevators that think for themselves.

Devised by the elevator division of the Westinghouse Electric Corp., a miniature 10-story office building containing a working model of a four-car bank of these electronically controlled elevators went on demonstration yesterday at Westinghouse offices at 600 St. Paul Avenue.

The four-day demonstration is being staged for architects, owners and managers of office buildings.

Fully automatic and with no need for human attendance whatsoever, these uncanny elevators count passengers by weight load, regulate themselves to fluctuating traffic patterns throughout various periods of the day, compute calls from various floors and automatically dispatch themselves to keep passenger waiting time at a minimum.

Not even a starter is needed in the ground-floor lobby of a building so equipped — unless the manager wants to have someone around as a greeter or dispenser of building information.

Simulating a 24-hour day and the transporting of approximately 900 persons working in a 10-story building, the 20-minute demonstration of a model shows the tiny elevators operating on "off" hours, "peak up" hours, balanced service hours, "off peak down" hours, "peak down" hours, and back to "off" hours.

In each of these periods the elevators regulate themselves. In the simulated morning hours when people are arriving for work, for instance, the elevators increase their "up" service. Similarly, when people leave in the evening, the "down" service is increased. Then, as demands decrease, the elevators automatically take themselves out of service until there is only one left in use throughout the night.

Built at a cost of $50,000, the model is scaled one-half inch to one foot. Six feet high and weighing a quarter-ton, it contains some 420 separate electrical circuits transmitting 10,000 electrical impulses to control the cars.

Cost of installing such a system in a full-scale office building is estimated by Westinghouse engineers at between $270,000 and $300,000.

However, regular manually regulated elevator systems can be converted to this fully automatic operation.

First buildings in Los Angeles scheduled to be so converted are the Prudential Insurance Company's western home offices on Wilshire Blvd. and the Cedars of Lebanon Hospital. Both conversion projects are expected to be completed late next year.

Presiding at yesterday's initial demonstration of the electronic model were Stanley M. Johns, South Pacific district manager for Westinghouse, and Gano R. Baker of San Francisco, Pacific Coast district manager of the corporation's elevator division.

Freedom From Toil

(Continued from Page 9)

for his own use, the individual will be able to adjust his interests to suit his age and capacities; and so, he will not build up anticipatory fantasies about what he will do when he 'retires' from the job. Furthermore, by retiring from functional status at the age of 45, the individual will be young enough to devote full time to some long-term study or activity which appeals to him. With full purchasing power to go with it, most restrictions and limitations on what one can do with his time will be gone.

One will not be in the position of the retired couple today, who, some twenty or more years ago, succumbed to the luring ads of an insurance company which promised them a happy, carefree retirement on $100 per month. Now, the couple — if still alive, and if they kept up the policy, and if it is paying off as promised — learn that $100 per month does not provide anything resembling a 'happy, carefree' retirement. They also observe that the same insurance company is promising the same kind of a happy, carefree retirement only if you will invest in an insurance policy that pays you $250 per month after retirement. (It is highly probable, however, that the retired officials of the insurance company are receiving a much higher retirement income than what they promise the customers. The businessman knows that his lies are only good to make money with, not to live by.)

Preparation for Freedom

In the Technate of North America, special attention will be given in the Educational Sequence to preparing and advising individuals for a life that is free from occupational toil. No individual with a sense of realism and with initiative will need much guidance. He will be able to decide and plan his own life and discover plenty of things to make it interesting. Those who lack initiative and prefer to be socialized followers of some organized avocation probably will drift under the 'wing' of some person whose initiative takes the form of being a 'mother hen' to other, less assertive individuals. Those whose philosophical dreaming may lead them into realms of unreality, of course, will need some guiding assistance from others whose mental symbols correspond more closely with the facts and events in the physical world. Then, there will be a few, who, in spite of everything, will tend toward anti-social interests. These will have to be guided into harmless channels of activity or, in extreme cases, restrained from 'being their natural selves.'

No doubt, most of us will not 'view with alarm' the prospect of our own abundance of free time; but, there will be many among us who will be much concerned about what the 'other fellow' will do with his free time. This latter concern will be derived from the social habit pattern of being a 'neighbor' for so long; under which status, we have learned to 'keep an eye' on those around us and subtly to keep them 'in line.' We have particularly made a point of worrying about any of our neighbors who seemed to be getting more fun out of life than we were. So, it is only natural that we should show signs of apprehension about what others will do with their free time. We are just ornery enough to envy their doing something more enjoyable with their time than what we plan to do with ours. Our moral habits have been guided by the precept, 'if it feels good, it must be bad.' And we don't want anything 'bad' to happen to our neighbors.

Technocracy is not concerned with philosophical argumentation as to whether freedom from toil is good or bad for the population. We are merely pointing out that the days of human toil on this Continent are nearly over and that North Americans are going to have a lot of free time on their hands whether they like it or not. In fact, it is so near at hand, we suggest you start thinking about it, and start becoming psychologically adjusted to the idea.

—Wilton Ivie, CHQ

Automatic Lemon - Sorter

University of California, Davis, Calif., Dec. 9, 1953 — Speeding up a successful electronic lemon-sorter developed on the Davis campus of the University of California is now under study by agricultural engineers.

"And it's our most difficult problem," commented John B. Powers, agricultural engineer in charge of the research.

The lemon-sorter, developed at Davis over a period of years, is described as successful in every respect except that the lemon industry would like greater speed without fruit damage. Powers says the model the Davis engineers are trying to improve sorts five lemons a second. The goal is 20 per second; but they may have to be satisfied with 10 to 15 per second.

The electronic optical device that inspects the fruit can make 100 decisions a second, but a lemon, once inspected, cannot get out of the way fast enough for fruit to be inspected at that rate.

Since lemon trees have fruit in every stage of development and ripeness at any one time, harvesting necessarily takes all fruit of commercial size, and the various stages of ripeness must be sorted out for separate handling at the packing plant. Color sorting lemons is one of a sequence of operations that includes picking, loading, hauling, unloading, dumping, washing, culling, waxing, color sorting, and storage.

Interrupting any one of these operations for any time stops them all. The sorter must therefore not only equal standard accuracy of visual sorting but handle peak loads without getting behind, equaling the combined output of 10 to 20 human sorters.

Assisting Powers on developing the machine and final improvements are Specialists Frederic C. Jacob and Jack T. Gunn, of the department of agricultural engineering of the College of Agriculture at Davis.

A NEW CULTURE

The degree of civilization which a nation has attained may be judged, in part, by the type of entertainment which appeals to the people of that nation.

A tightrope walker dances on his rope for the entertainment of thousands of people. A toe dancer stands on a man's hand, spinning, and he lifts his hand above his head while she is standing on it, still spinning. Large audiences are attracted by this performance. Three motorcycles, in triangular formation, one of them being inverted, advanced along a cable strung from the top of one building to the top of another. About halfway across they come to a breath-taking stop and then go on. The street is roped off below, but the people break the ropes and throng close to watch.

The degree of civilization which a nation has attained may be judged, in part, by the type of entertainment which appeals to the people of that nation. We are inclined to think of the ancient Romans, who were entertained by watching gladiators, as barbaric in their taste for pastimes. Likewise the Spaniards, watching toreadors; and the English, in the days of knighthood, holding tournaments. But if we are entertained by watching performers risking their lives, are we much more advanced than they in our taste for entertainment?

The Price System is responsible for many evils, one of which is that it influences people to seek the kind of diversion that thrills and excites barbaric emotions rather than more wholesome, safe forms of recreation. Performers who risk their lives do so because of the thousands of dollars they receive. The spectators have been ballyhooed into desiring it by the display of posters, by newspaper advertisements, and by the distribution of leaflets.

With the elimination of the Price System will come the elimination of advertising and a constant improvement in our way of living. Products which are often injurious to health, but which bring a high return on the investment, such as cigarettes and liquor, will no longer be featured on television, in papers and magazines, and on billboards along our highways, all across and up and down the Continent. In the advertisements, the harmful effects of cigarettes and liquor are, of course, ignored, and the pleasure of consuming them is exaggerated.

In the Technate, the true relationship between tobacco and liquor and the healthful functioning of the human body, as determined by careful scientific tests, will be fully explained to the youth in the educational system. The youth will not be lured into 'temptation' by advertisers seeking profit therefrom. If the individual drinks or smokes, he will do so from knowledge of the probable effects and not from the psychological pressures of commercialized interests.

When the Technate has become established, individuals will have the opportunity of continuing their education and preparation for their chosen occupation until the age of 25. Instead of being taught how to take advantage of their fellow citizens, as students of salesmanship, advertising, and business administration are being taught today, they will probably be given their choice among a wide variety of cultural subjects, in addition to the fundamental, required subjects. Students will be shown the nature of the various occupations, for they will be taken on educational tours throughout the Continent, observing the operations of the various industrial plants. Thus, they will be much better able to choose the field in which they wish to function than are the youths of today. Modern methods of education will draw out the best that is in each individual and encourage refinement of taste and manners and a greater appreciation of life.

There will be a high standard of living for everyone. Our foods will be the finest and most wholesome obtainable; the housing will be designed for the greatest convenience and comfort; women will be relieved of the drudgery of housework and will receive the same amount of purchasing power that men receive, in the form of the Energy Certificate; no one will 'look down his nose' at another because of income differential, for we shall all be economically equal; those who are physically or mentally below par will be given the best treatment available; about 95 percent of all crime will be eradicated, and the rest will be dealt with by psychiatrists. Consequently we shall become a far healthier, more cultured people.

Our primary occupation will be the production of goods and services for the use and benefit of the people. This will require only four hours a day, four days a week, 165 days a year, of the time of each individual between the ages of 25 and 45. Hence, we shall have an abundance of time for new and more pleasurable occupations.

Someone has truthfully said that we are fast becoming a generation of listeners and lookers. In the Technate, however, individuals will have greater opportunities for self-expression. We shall probably spend less time listening to the singing and talking of others and watching the performances of others, for places of recreation will be provided for swimming, skating, dancing, dramatics, and other activities in which one can participate directly.

We shall have a 'heaven on earth' in which we shall learn to play and shall develop a keener sense of humor and a real zest for living.

—Edith Chamberlain, MAL

Inland Waterways Are Efficient

Wall St. Journ., Dec. 23, 1953 (Saulte Ste. Marie, Ont.) (AP)—The world's busiest canal system, bypassing the rapids of the St. Mary's River, cracked its own cargo record in 1953.

Great Lakes freighters, averaging 112 passages a day, carried nearly 129 million tons of cargo through the canal's five single locks — four on the United States side of the river and one on the Canadian side. The old record of just over 120 million tons was established in 1942.

Iron ore from the Lake Superior country dominated the cargo picture. More than 93 million tons moved through the key Great Lakes transportation link to feed the blast furnaces and open hearths of the industrial East.

Wheat ranked second in the cargo picture with more than 7 million tons, about half the record total for wheat, set in 1945. Petroleum products, mostly crude oil piped from Alberta to Superior, Wis., for transhipment, was third with 3,086,875 tons — a record for this type of cargo.

The ore, wheat and oil moved East. West-bound cargoes were mainly soft coal and automobiles — more than 35,000 went to the Lakehead ports.

Giant new freighters played a part in the year's record run. Canadian vessels like the Sir James Dunn, John O. McKeller and Scott Misener have a carrying capacity of some 13,000 gross tons or more. Inland Steel's Wilfred Sykes has a capacity of 19,500 tons and some other new U. S. vessels rank close to it.

The modern canal, in which 650-foot freighters are a common sight, presents a striking contrast to the first canal the fur traders built in the late 1700's to avoid the back-breaking portage around the then turbulent rapids. Now the rapids are quiet because of diversion of water through power canals, but their rocks are still a block to navigation.

The old Northwest Fur Co. built the first lock in 1797-98, for its fur-laden boats. Constructed of timber and rock, it was 28 feet long and nine feet wide. A tow path was constructed along the shore for oxen to pull boats past the upper rapids.

American troops destroyed the old lock when they occupied Sault Ste. Marie in the War of 1812. It has since been restored in its original form.

Except for the fur company lock movement of freight to and from Lake Superior was by portage until 1855 when the United States built its first lock. Until its construction, freight passing the two saults by portage was estimated at about 12,690 tons a year.

The United States has the biggest of the modern locks — the MacArthur — built during World War II. It has a depth of 31 feet and can accommodate any vessel on the Lakes.

The Canadian lock, built in the years from 1888 to 1895, has a depth of about 22 feet.

Taxes 1910 - 1953

The Chicago Daily Tribune, Oct. 4, 1953 — A feminine reader of the Chicago Daily Tribune asked this department the other day how the United States got along before it had an income tax.

. . . So, lady, we will do our best to answer you. A comparison of certain financial statistics covering the fiscal year ended June 30, 1910, with those for the fiscal year ended June 30, 1953, actually will provide the answer. Probably the feminine reader isn't old enough to recall that the income tax became a part of America's tax fare in 1913.

In the year ended June 30, 1910, federal receipts totaled 676 million dollars and federal expenditures totaled 660 million dollars, leaving a surplus of 16 million dollars. In the 1953 fiscal year receipts totaled 65 billion 218 million and expenditures 74 billion 607 million, leaving a deficit of 9 billion 389 million as a further burden on taxpayers.

Incidentally, the odd millions in the 1953 deficit are a little more than half the amount spent in 1910.

. . . Here is a comparison of 1910 and 1953 expenditures:

Defense, military functions (war and navy departments), 279 million dollars in 1910 and 43 billion 638 million in 1953. Defense, civil functions (war and navy departments), 3 million in 1910 and 710 million in 1953.

Interest on debt, 21 million in 1910 and 6 billion 589 million in 1953. Postal deficit, 8 million in 1910 and 581 million in 1953. Other spending, 349 million in 1910 and 23 billion 889 million in 1953. . . .

Electrical cracking of walnuts cuts crew from 100 to 60.

The Changing Course Of . . .

THE TRADE WINDS

Through Chinese corruption and British enterprise, the opium traffic was in full swing in the 1830's. Now Britain sees the error of her ways and joins UN in ban on drug to China.

Representatives of 17 nations, including the United States, met at the United Nations headquarters one day last month to sign a treaty limiting opium production to 500 tons a year for medical and scientific purposes. Conspicuous by its absence at the signing was the nation that has suffered most from the narcotic throughout history — China.

. . . China's cynical snubbing of the treaty is all the more ironic when viewed against her past association with the drug.

More than a century ago, China fought a two year war in a vain attempt to keep the narcotic out of the country. England, which signed the opium control treaty June 24, was the villian in the opium war of 1839-'42, surely one of the blackest marks on the record of the British empire and probably the most sordid example of war for direct economic gain in modern history.

From the ninth century on, China had received opium in small quantities from traveling Arabs and Indian traders, but its use was purely medicinal. Portuguese traders brought it in on a larger scale in the 18th century, leading to the Chinese government's first edict against it, in 1729.

When Clive conquered India, one of the biggest prizes of victory was the opium monopoly in 1773 and the manufacturing monopoly 24 years later. When the opium trade came into full flower, in the 19th century, this monopoly accounted for no less than one-seventh of British India's total revenue. According to one authority, opium was the largest commerce of the time in any single commodity.

Throughout this period, leading up to the opium war, the drug was contraband and had to be smuggled into China. Most of it was grown in India, where the cultivators were paid a fixed rate for their crops. The East India Co., which handled nearly all of the Chinese opium traffic through the first third of the century, kept its hands clean of the retail aspects, leaving the actual distribution to private merchants.

Bribery of Chinese officials was the key to getting the narcotic into the country. Local mandarins fixed a price of "protection" for each chest of opium.

Their cooperation in the opium traffic was excellent, to say the least. Often the "smug boats," which took the illegal cargo from merchant ships for distribution, were the very ones that were supposed to prevent opium smuggling. Even the imperial junks, which made an annual trip from Canton to the Pekin river with presents for the emperor, carried an under-cover cargo of the drug for sale in the northern provinces.

So through Chinese corruption and British enterprise, the opium traffic tripled in 20 years to more than 2,500,000 pounds in 1830. But there were occasional spurts of law enforcement among the mandarins, which caused the price of opium to vary greatly. There were economic boom and bust periods, also, when a chest of quality opium dropped from $3,000 a chest to less than half that amount in a few months, because of feverish speculation.

At no time, perhaps, has the glitter of gold so blinded the moral eyesight of a nation as in this period, just coming into the Victorian age of strict scruples and prudish conventions. One of the leading opium merchants defended his trade by noting how both houses of parliament, "with all the bench of bishops at their back," refused to abolish the business because it was "financially inexpedient."

Opium, in other words, was too big a thing to strike down merely for fine moral principles. The same merchant, in fact, was capable of advising a friend to invest in opium, "the safest and most gentlemanlike speculation I am aware of."

It also was a terrific money-maker. This fact, more than any desire to save the Chinese from becoming a nation of narcotic addicts, was the one that brought on the opium war. The emperior was justly worried about the drain of silver from the land.

Antismuggling measures grew tougher and tougher. British merchants urged their government to step in and place the illicit trade "upon a safe, advantageous, honorable and permanent footing." But by 1837, opium importing at the largest market, Canton, was at a standstill. So the merchants took a desperate step — they started smuggling dope up the rivers on their own ships.

This led the Chinese to appoint a special imperial commissioner, Lin Tse-hsu, with special powers to knock out the opium trade once and for all. He confiscated all the opium on British ships at Canton, more than three million pounds of it, worth about 10 million dollars. Furthermore, the merchants were ordered confined in their houses.

The British government reacted just as the opium traders hoped it would. A frigate arrived in August, 1839, and sank three Chinese junks. Troops were brought in from India the following June and the Opium war was on.

It was an easy campaign against the disorganized Chinese government, and the British took their time, concentrating on the southern provinces. The opium merchants followed up the troops closely, making fantastic profits. The treaty of Nanking, signed by the Chinese August 29, 1842, gave the merchants all they wanted.

Hong Kong was ceded to the British, four other ports were opened for trade, duties were limited to 5 percent and opium was not mentioned. The Chinese still prohibited it on the books, but no effort was made to enforce the edict. Victorian hypocrisy reached its highest point in a letter by Prime Minister Palmerston, hailing the treaty as "an epoch in the progress of the civilization of the human races."

The opium traffic was legalized in 1858, and the remainder of the century saw a steady growth in the number of users. More than half of China's population of 400 million used the drug in some form by 1906, according to estimates, and the Chinese government got an annual income of about 30 million dollars in customs and licenses.

Under a decree from the empress Dowager, however, the traffic was to be abolished within 10 years. By 1914 it was knocked out in many provinces. Another British treaty, however, kept it alive in three provinces until 1917. Opium poppy growing went underground.

The turbulent 1920's in China made this a profitable venture. When the Japanese invaded the land in the thirties, they helped to spread the habit in order to lower the Chinese fighting morale.

Now the wheel has come full circle. Communist China has been charged with attempting the same kind of thing with American soldiers in Korea, and the nation which fought a war to stop the opium trade refuses to sign a treaty for its control.

—Gerald Kloss

Reprinted from Milwaukee Journal, July 15, 1953

Could This Be Called . . .

GALLOPING SOCIALISM?

Los Angeles Daily News, Rifle, Colo., Dec 8, '53

Sprawling across the western slope of the Rocky Mountains near this town in western Colorado is a formation containing oil shale rich enough to yield more crude oil than has been discovered in liquid deposits throughout the history of the United States.

This deposit, which in its rich mahogany ledge alone is capable of producing 85,000,000,000 barrels of oil, has long been known but only recent technological developments have made the conversion from shale to crude practical.

Some segments of the oil industry insist its utilization is still not economically feasible, but A. C. Rubel, vice-president in charge of exploration and production for Union Oil Co., argues that the shale can and should be developed in the interest of national security.

In an effort to prove its point, Union Oil flew reporters from the east and west coasts to view a small *pilot operation run by the U. S. Bureau of Mines* near this community, 150 miles west of Denver.

Eight miles from Rifle the newsmen witnessed the conversion of the oil shale from its inception in the mines cut horizontally into cliffs 9500 feet above sea level to its final emergence as gasoline used to power the government busses.

Rubel believes with sufficient production this oil shale can be converted into gasoline at Los Angeles for only 1 cent more per gallon than the present refinery price.

Admittedly this would make it a bad investment for a single commercial concern.

But the Union Oil executive sees two reasons why further development should be pushed by the oil companies which have vast holdings in the 1000 square miles containing the mahogany ledge, as well as the government, which also has marked off a large part of the area as a naval oil reserve.

The first concern is national defense.

Rubel feels that in a time of war our imports from abroad would likely be cut off by enemy submarines, leaving us with a potential gap between cilivian and defense needs and domestic supply.

"I am sure we must all agree that there is no reason at this time to suggest the building of a 50,000 barrel per day shale oil plant at a cost of $300,000,000," said Rubel.

"But it is important," he added, "that we know how to build such a plant quickly when the need does arise so that sufficient production can be realized quickly and without the loss of billions of dollars such as occurred during World War II with synthetic rubber."

Rubel's second reason for wishing to push experimental work is that in his opinion the day will come — "in five years, or 25 years, but eventually" when the expense of pumping domestic liquid crude will surpass the gradually lowering cost (with anticipated technological improvements) of producing oil from shale.

For this reason he has been attempting to get the many oil companies holding rights in the area to enter into a cooperative development plan.

As a result, *he has urged the government to appropriate* $7,500,000 *to build a big enough experimental operation to work the bugs out of methods so that large-scale production could be realized more quickly and economically* in case of sudden need.

Human and Mechanical

CONTROL BY FUNCTION

Every person begins individual growth and development from one germ cell. In two hundred and eighty days this fertilized ovum increases in volume about one billion times and by maturity the human body consists of possibly several thousand million cells.

Life is the continued functioning of that body, made possible only by the efficient correlation of all its many varied systems. Each specialized cell is comparable to a specialized citizen in a Technate, and our body systems are comparable to the functional system necessary in maintaining the efficient operation of our high-speed producing and servicing equipment of this North American Continent.

First, we shall investigate our muscular system. We find it is composed of millions of specialized cell agencies. Each cell receives its supply of energy from the blood stream and converts it into work. Through the many varied combinations of these muscular cells we are able to move and operate the human body throughout our span of life. These muscle-machines correspond with the scientific machinery needed in operating North America as a Technate.

Second, let us examine our glandular system. Here we find that the endocrine glands speed up or slow down various functions of our body. With these glands and the aid of our five sense organs, the body can maintain dynamic equilibrium. In a similar manner, citizens operating a Technate with the information provided through Technocracy's 'Energy Certificate,' will be able to maintain a balanced-load operation by efficiently regulating production and distribution of goods and services in accordance with the demands of all citizens.

Now, consider our intricate nervous system (scientifically known as the most complex system in the universe) receiving and transmitting messages from the outside or inside of the body. The nerve fibers can be compared to the wires of North America's communication system. Each little sensory organ by which we feel is connected with its own nerve fiber similar to each house phone, provided with a single telephone line. Just as the automatic telephone exchanges on this Continent connect separate phones, so do the brain and spinal cord connect separate sense organs.

The brain is directly comparable with Technocracy's proposed 'Continental Control.' The brain is the central point where are registered all facts necessary to keep the body in dynamic equilibrium. Similarly, Continental action will result from factual decisions effected by the automatic operation of the Continental Control as it receives its continuous recording of all production and distribution transactions.

The digestive system (which is a complex analytical chemical laboratory) processes all food as we eat it, into an energy form which the millions of body cells can use, and places the converted food in the blood stream for distribution throughout the body. We get more energy per fuel unit from our human internal combustion engine than from any man-made machine, even though 75 percent of this energy is used to maintain the body. Similarly, America's many factories process natural resources and are capable of placing an abundance of goods in our transportation system for distribution throughout the Continent. Cells do not argue.

The circulatory system is composed largely of arteries and veins. The arteries efficiently transport food energy in adequate proportions to every one of the millions of body cells on a twenty-four hour basis, high load-factor operation. We do not find individual cells arguing that their function is of greater importance than another, so the other cell should not be permitted to receive so much energy. Instead, they are not interested in what the other cells use; but all receive as much energy as they can consume. Similarly, North America's distributive system could transport goods abundantly to everyone of the millions of citizens if it were not for Price System interference.

The veins also provide transportation facilities; but this time to remove the waste matter from each cell engine and carry it to the kidneys and lungs for elimination. So do all cities and towns operate sewerage systems where refuse must be transported from residential areas to central incinerators.

The body is built up of cells which are woven into tissue and then built up into large organs, each possessing a certain unity and performing a definite function. These specialized cells receive no wages; nor do they stop to argue, or go on strike. Instead they 'keep their noses out of the other fellow's activity.' What an important lesson this is to America's citizens.

Knowing what would happen to the body should our heart shut down but a few minutes, we can easily realize the result of a Continental industrial collapse should North America's power plants ever close down but a few hours. The ensuing chaos and mob hysteria would be so great that few if any of our

present population would live to see the Continental machinery go back into operation. Continental 'rigor mortis' would set in very rapidly.

It is for this reason that Technocracy is warning North Americans of the drastic results that may occur if inefficient political and Price System controls in this day of high-speed technological production are permitted to continue maintaining scarcity by enforced destruction and waste.

Investigation shows that the human body functioned as a Technate long before engineers started designing Technocracy. It is time for America to apply science to our social order, or shall we say — apply nature's physical laws to our methods of distribution.

Just as the new born child instantaneously adapts itself to the new environment by breathing and eating independently instead of receiving nourishment through the umbilical cord, so must America adapt itself to the environment of abundance, by immediately replacing the outworn scarcity Price System control with a modern scientific control designed to distribute an abundance.

If you do not already understand these natural, physical 'facts of life,' now is the time to investigate, and prepare.

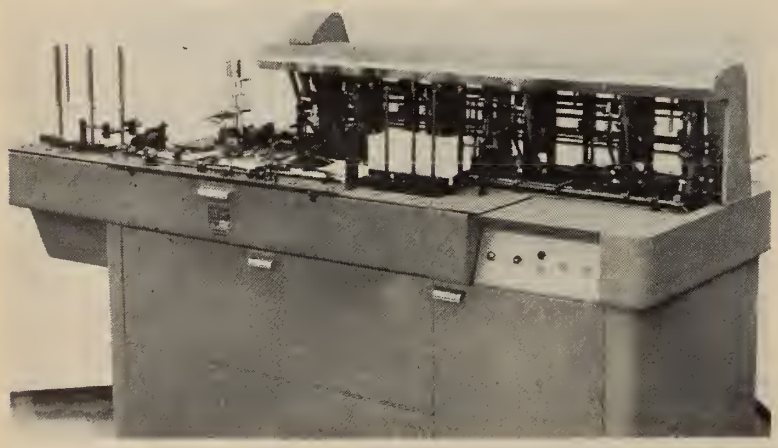
—Cyril Large, 7943-1

Machines vs. Man - Hours

Labor, Jan. 16 — In an "up-to-the-minute" Ford Motor plant, says a report, "auto engine blocks are machined without the touch of a human hand. This is an example of the widespread move toward doing more work by machine. Dozens of other big companies are doing likewise. They make everything from autos to appliances to chemicals to gasoline."

"The main attraction, of course, is production at lower cost per unit largely via labor savings," the report points out.

There's a good side to that sort of thing, but it also increases the danger of depression. How can it be avoided unless jobs are created for the workers displaced by the new machines, and unless wages are raised and working hours shortened to keep purchasing power up with producing power?



Mechanization of Mailing . . . Office personnel beware!

New Textile Blend

Tampa Tribune, Nov. 29, 1953 — Ramie, one of the oldest textile fibers and a new and promising Florida crop, at last is getting into commercial production in this country.

Herman S. Shaps, in an article in the Daily News Record, New York textile and merchandising publication, said ramie materials were now in production, and the fiber is being used largely with cotton and other fibers to add strength and durability to the finished product.

The uses of ramie are so many that the demand is far above the present production, but the Newport Industries of Canal Point, Fla., report they are increasing their facilities to produce more ramie.

The secret of ramie is the method of separating and cleaning the useful fibers from the stalk of the ramie plant. In the past years it has required exhaustive hand labor and its cost was high. Recently discovered methods of separation of the fiber have made it commercially available.

Ramie blended with cotton and viscose in quantities has been found to cut the cost of making the product.

The use of the fiber in clothing gives extra strength, wrinkle resistance, spot repellency, washability and longevity.

Most of the materials which contain ramie will be in the field of sportswear and casual wear. This was indicated by merchandise shown at recent clothing shows in the East, Shaps said.

The new apparel cloth now being used in clothes which contain ramie is much more durable than woolen and rayon blends of the same price range.

The use of ramie is far reaching. It is being used for automobile upholstery, home upholstery, draperies, uniforms for the French army in tropical Indo-China, currency, automobile floor coverings, and many other such uses.

Since ramie has been talked about several years in this country in the clothing world the first question raised at recent showings in New York was, "Why is the new material better?"

Tests of the new fibers have been conducted for many years at the *Everglades Experiment Station, conducted jointly by the State of Florida and the U. S. Department of Agriculture.*

In almost all instances ramie has to be blended with some other fabric such as cotton, linen, and rayon.

Charlton H. Williams, president of Swift Manufacturing Company of Columbus, Ga., one of the leaders in the field of ramie products, said it is difficult to spin 100 percent ramie. Williams said it was being done in Japan in very fine fabrics.

No specific figures have been made public on the percentages of the various fibers in the blend. Ramie experts say the aim is to use only enough ramie to counteract some of the deficiencies of cotton and rayon in the complete fabric.

Work, Research, Knowledge,

THEN -- KITTY HAWK

There was no haphazard guessing behind the Wright Brothers' triumph at Kitty Hawk; working, testing, revising, and experimentation were the cardinal principles in the development of the airplane.

Throughout the year 1953, the aviation industry has been marking the Golden Jubilee of the first heavier-than-air powered flight. The rapid advances made by this giant industry belie the events which led up to the historic feat at Kitty Hawk, on December 17, 1903. *The four flights made there that day were not the result of haphazard mechanical experiments but rather the culmination of years of deliberate planning by the Wright brothers,* Orville and Wilbur.

One source tells us that the Wright boys first became interested in airships when their father brought home a toy helicopter. The influence of this flimsy plaything, soon broken, was quickened by the extensive reading in which they indulged, encouraged by their father, a clergyman deeply interested in the intellectual development of all his children. As teenagers, the lads began to put their mechanical bent and ingenuity to good use in their bicycle shop in Dayton, Ohio, where their inquiring minds absorbed much of practical value.

Somewhere they came across reports on the work of Otto Lilienthal, German engineer and aeronaut known as "the Father of Gliders." The Wrights were fascinated by the accounts of his efforts, and their interest in flying machines sparked into a healthy blaze. With power propulsion as their ultimate goal, the brothers began to experiment with gliders in 1899, hoping in this practical manner to learn the principles of free flight.

The deliberate progression of events preceding that significant December day was indicative of the Wright brothers' personalities. With tenacity of purpose, they advanced from research to experiment, turning every mishap and disappointment into an opportunity for further careful study. Because of their single-mindedness they ignored discouraging setbacks.

In the course of their investigations in the field of aviation, the Wrights used and discarded many theories advanced by their predecessors. Octave Chanute, a French civil engineer with whom they corresponded regularly during those years of experimentation, provided them with a set of figures relating to aero-dynamics. It was during this period that the brothers became convinced that the published tables on air pressures on curved surfaces were subject to question. This conviction led to the construction in 1901 of a wind tunnel at Dayton where they made measurements of the lift and drag of differently shaped air-foils at angles from 0 to 45 degrees. Those tests resulted in the revision of the figures and enabled them to achieve powered flight.

When the time came to put a motor in their plane, the Wrights asked the infant auto industry to provide them with a 4-cylinder engine. Told that the manufacturers were too busy, the brothers built their own in six weeks with the assistance of Charles E. Taylor, an employee. The design was based on prevailing automotive practices. Complete with accessories, the 12-hp unit weighed only 170 pounds. The propeller presented a more difficult problem, and to solve it the pair discussed the matter with boatbuilders. Finding that ships' screws were produced mostly by guesswork, the brothers reached the decision that airplane propellers should be constructed on the principles of aerodynamics and worked out a design which made each part an air-foil.

Reaches Practical Stage

By 1904, Orville and Wilbur believed their flying machine had reached a practical stage and set about trying to find a market for it. Offered to the Government in 1905, it was three years before the War Department announced its intention of purchasing a plane. In 1909 the United States Signal Corps acquired a Wright machine, and military aviation was born. Meanwhile Wilbur had gone to Europe to conduct tests for a French syndicate interested in obtaining sales rights. That was in 1908, but not until World War I was the real value of military aviation brought home to the world. Soon planes were being designed and built for special purposes, and it was only a matter of time before aerial bombardment was an accomplished fact. The struggle for air supremacy had begun.

At the outset the Wright brothers did not envision the great potentialities of the engineering field upon which they had ventured; they believed their invention to have only limited military application. Orville died in 1912, but Wilbur lived through two wars in which aviation was a major factor. Unhappy though he was about the destruction caused by aircraft, still he did not regret the part he played in its

development. During his lifetime, powered flight had not only forcibly demonstrated its capabilities as a fighting arm but also promised achievements far beyond those the average mind could imagine.

The reason the Wrights succeeded in solving the problem of heavier-than-air flying machines that balked others with a more formal education probably lies in the fact that they were deliberate individuals with organized minds. They divided every problem into segments, and not until one had been mastered did they consider the next step in their search for the secret of powered flight. In addition to this dominant trait, the brothers were patient, energetic and ingenious and free of family responsibilities.

The years between the two world wars were a colorful kaleidoscope of aerial activity — barnstorming, transoceanic and round-the-world hops, endurance tests — all of which resulted in a wealth of data of importance to designers and builders of airplanes. During that time, many of today's major aircraft companies were born. Aerial navigation in America was developing slowly, but soon began to snowball. In 1935, the principal air lines logged 314,000,000 passenger miles, but in 1952 scheduled planes covered 1,114,000,000 miles.

Establish Mail Lines

The first transcontinental mail route in the United States was established in 1921 and ran between New York and San Francisco. Three years later the world's first regular night service was inaugurated between Chicago and Cheyenne. The following February Congress passed the Kelly Act, a bill allowing the Postmaster General to make contracts with private lines for the carriage of mail. In 1926 the Air Commerce Act brought air under Federal control, and a civil aviation branch was set up in the Department of Commerce to administer regulations and to take charge of route organization and traffic facilities generally. By the end of the year, fourteen lines were carrying the mail.

The first sacks flown under contract were handled by a line operated by Henry Ford. Among the pioneer systems was Western Air Express, a forerunner of Transcontinental & Western Air, Inc. In 1931 the first foreign airmail service was set up by Pan American Airways, a short run between New York and Bermuda. Four years later planes covered the airmail route San Francisco-Manila and return, which required 122 hours flying time. Service between America and Europe was established in 1939. Reports show that in the fiscal year of 1952 the U. S. Government paid air lines a total of $125,400,000, of which $55,100,000 was for transport and the remainder for subsidies.

The first cross-country air-freight shipment on record was made November 7, 1910, when P. O. Parmelee, a Wright pilot, carried 70 pounds of silk from Dayton to Columbus, Ohio, a distance of 58.3 miles, in 59 minutes, flight time. Charges collected from the Morehouse-Martens mills were based on a rate of $71.42 per pound. Heavy freight cargo did not reach a great volume until 1945, but a Lockheed Aircraft Corporation report predicts it will surpass passenger transportation by 1959. Scheduled passenger lines added cargo flights in 1947, and new freight routes were organized at the same time. Since then the cargo plane has made previously remote parts of the world accessible as a result of both freight drops and pickups and has revised not only marketing maps but marketing procedures. New aircraft, especially designed, are being built to satisfy the needs and demands of this branch of the industry.

No one person can be called the inventor of the helicopter, since the principle governing vertical ascent and descent was discovered at different times by different men. Paul Cornu of France and the Breguet brothers made separate attempts to get 'copters off the ground, but managed to attain heights of barely 4 feet. Sikorsky in 1910 tried in Russia, but soon returned to experiments with fixed-wing planes. Others, however, continued to work with helicopters, and in 1922 one built for the U. S. Army rose into the air and drifted 300 feet. The idea seemed to be to make the ship go somewhere beside up and down.

In the 1920's, Juan de la Cierva solved the riddle of stability with his autogyro. But this was really an airplane with shortened wings, a propeller and a motor. On top was a rotor that turned in the air stream and permitted the craft to climb at a steep angle and then to "parachute" to earth. Subsequently, the wings were eliminated, the rotor was power-driven and its head was made to tilt so that the blades could pull the helicopter forward, sideways or backward.

'Copters Make Debut

With the beginning of World War II the problem of vertical flight was tackled in many parts of the world and orders for 'copters were placed in the United States by the military services. The craft produced were small as well as fragile, and less than 1000 were put in commission. With the solution of a number of engineering problems at the end of hostilities, helicopters became sturdier, larger, and more powerful. Today they are used by police departments for traffic control and rapid transportation over crowded urban districts; to reach otherwise inaccessible disaster areas; and to carry mail and passengers. In September of this year the world's first international helicopter service began scheduled flights out of Brussels, Belgium, to other major European cities.

"Thrusting forward by giving a backward kick" is the principal upon which the Wrights based their first powered plane, and it is now being applied to craft undreamed of in their day. At present, five types of engines are mainly depended upon for propulsion. There is the reciprocating or piston engine with which the Kitty Hawk plane was equipped. It drives the propeller which, working as an air screw, pulls the flying machine forward fast enough to create a lift over and under the wings to keep it

aloft. The Turbo-compound engine is a piston engine with an exhaust-driven turbine added. Diverted exhaust gases spin the turbine, from which a drive shaft transmits the energy to the engine crankshaft and then to the propeller, thus increasing the power by as much as 20 percent.

The turbo-prop or jet turbine engine has two sets of turbine blades and drives a propeller. The forward set compresses air, and the rear blades, which are rotated by the expanding gases from the continuous combustion of the air-fuel mixture, turns the drive shaft which spins the compressor and propeller. The plane powered by a turbo-jet engine has no screw, and the forward thrust comes entirely from the force of expanded gases which, escaping to the rear, give an "equal and opposite reaction" that pushes the craft ahead. The last of the three jet-type power planes is the ram-jet engine. Still in the experimental stage, it serves to propel guided missiles. Because it has no compressor to supply air for fuel combustion, it must be launched from a plane or by a rocket. Its initial high speed rams air into the chamber and compresses it. When the air-gas mixture is ignited, the rearward action of the expanding gases drives the jet forward.

The first blind take-off, flight and landing was made Sept. 24, 1929, by (then) Lt. Jimmy Doolittle at Mitchell Field, Long Island, N. Y. Sitting in the completely darkened rear cockpit of a 2-seater monoplane, he took off, soared for fifteen minutes, made two passes at the field and then came in for a perfect landing. This feat was made possible by two gyro-navigational instruments, one giving the direction in which the airplane was headed and the other the angle of ascent or descent. In the 30's, radio apparatus improved and pilots began to rely on their instruments. Direction was maintained with the aid of a compass, a turn indicator warned of any deviation from the course, and level fixed on the dash showed whether or not a machine was banked. Now, radar surveillance has greatly reduced the danger of approach and landing in bad weather and of collision in midair — in short, measurably increased safety in the realm of flight.

—Compressed Air Magazine, Dec., 1953

Push - Button Ammo. Inspection

Compressed Air Magazine, Nov., 1953 — Mass-produced ammunition can be inspected with precision at the rate of 3600 rounds an hour, it is claimed, by an automatic gauging machine recently developed by The Sheffield Corporation. It simultaneously checks profile and alignment, head to shoulder dimension, over-all length, extractor groove, primer depth and head diameter and thickness, while at the same time separating the cartridges into four classes; acceptable and rejects, the latter for dimension, overweight and underweight. The weighing device is of new Sheffield design and functions pneumatically. The unit is operated by a push button and has two hopper-fed split-chamber gauging stations.

Who Pays — Who Receives?

Wall Street Journal, Dec. 23, 1953 (N. Y.) — Austria will match Germany's settlement with its holders of defaulted state, municipal and corporate dollar bonds.

Although results of the recent Vienna conference have not been officially announced, it is known Austria agreed to pay current interest at 75% of the contract rate but not higher than 5¼% per year — the same as Germany's plan.

The Austrian 7% international loan of 1930 is not included under these new terms as its settlement has already been finalized. Austria will offer a 4½% interest rate on this national loan (about $2.5 million still outstanding) and maturities will be extended from 1957 to 1980.

Under the plan devised by Austrian government officials and representatives of the Foreign Bondholders Protective Council, Inc., holders of about $10 million in seven other defaulted dollar issues will get terms like this:

Province of lower Austria 7½s of 1950 will draw interest at 5¼% and mature in 1963; city of Graz, 8s of 1954 will bear 5¼% coupons on maturities running out to 1964; city of Vienna, 6s of 1952 will return 4½% to 1963.

Lower Austria Hydro-Electric Co. 6½s of 1944 will be reduced to 4.875% and stretched out to 1963; Tyrol Hydro-Electric Power Co. 7½s of 1955 will be whittled to 5¼% and continued to 1965; Tyrol 7s of 1952 will be cut to 5¼% and pushed out to 1963; and Alpine-Montan Steel Co. 7s will return 5¼% out to 1965.

Still to be worked out by the Bondholders' Council and Austria are the details of the interest arrears settlement. "We expect interest arrears payments to be commensurate with those of German state and cities," a council spokesman said.

"However," the source cautioned, "we won't be able to take care of back interest in the same form as the Germans because of technicalities, but we'll come close in the long run."

When these technicalities are smoothed out, he continued, the exchange offer will be formally announced, "probably before March 1."

The Vienna conferees also okayed a validation procedure to separate the "good" bonds from those looted from Berlin and Vienna banks during World War II. Austria will publish a "black list" of valid bonds and set a tribunal to hear holders' claims. The process is now being acted upon by the Austrian parliament.

Once this validation plan is approved in Austria and here, trading in "good" Austrian securities could begin in this country at any time. All that would be needed is a green light from the Securities and Exchange Commission, and experts figure this will probably come around the time of the formal exchange offer.

Signs of the Times

New York, Jan. 23 (UP) — A camera the size of a calling card is the latest item developed for manufacturers to use as premiums to spur sales in 1954.

The cardboard camera costs just 8 cents, takes a picture on verichrome film and can be reused if the owner wants to go to the trouble to have it reloaded.

"It folds flat for mailing and won't be sold in any store, just given away as sales premiums," explained Robert Kaufman, president of the company which introduced the cardboard camera.

"We started developing it two years ago when business was so good no companies wanted to look at giveaway items. We were tired of key rings and ash trays as sales premiums."

Now Kaufman and his business partner are having no trouble selling the idea to manufacturers, who plan to give it away with various products, including breakfast food, under various names, such as "spy camera."

It is an adaptation of the original pinhole camera which was used extensively in Japan during World War II, Kaufman said.

Rolling Out Radios

Wall Street Journal, Dec. 4, 1953 — A major production revolution is rolling in the electronics industry. Resulting cost cuts may eventually slash prices on radios, TV sets and other electrical gadgets that go into your home and into defense installations.

Raytheon Manufacturing Company's television and radio division here is putting finishing touches on an automatic radio assembly line geared to produce 1,000 radios a day, with only two workers needed to run the line. To maintain that production rate standard hand assembly requires a *labor force of* 200.

Pilot production began this week. "We expect to be ready for commercial production with the next model run in the spring," says William W. Garstang, assistant vice-president in charge of manufacturing.

An eastern radio manufacturer which insists on remaining anonymous is experimenting with an automatic assembly line of similar size intended to operate with only six people.

Sample Speed - Up

Compressed Air Magazine, Sept., 1953 — Traveling in pneumatic tubes faster than a man can run, open-hearth steel samples are carried about 1/10 mile from furnace to laboratory in less than twenty seconds at the Roebling, N. J., steel mill of John A. Roebling's Sons Corporation. The tube system simplifies the problem of maintaining consistently high-quality steel by making possible frequent control checks. Several samples can now be analyzed in the time formerly required to handle one. The installation is not unique in the steel industry, but it has some distinctive features.

Remote Valve Control

The Pipeliner, Dec., 1953 (Houston) — Shell Pipe Line Corp. reports that the new Rancho pipe line system, which it operates for six other joint owners, will become more nearly automatic in January. A new method of switching oil from the main West Texas-Gulf Coast line into six feeder outlets leading to delivery points will be placed in operation at that time.

Up to now, the switching has been handled manually but in 1954 it will be done from a control board in the Pasadena terminal. The new supervisory control equipment will provide a continuous electrical picture of the status of all valves operated by the terminal, and will record abnormal operating conditions as well.

The apparatus chosen used a relatively small number of transmission channels in conventional telephone circuits thereby minimizing the number of wire connections which must be made. Remote valves to be controled from the terminal also can be operated from buttons at or near valve locations.

The remote buttons will be wired essentially in "parallel" with those at the terminal so that no additional gear will be required to open or close them from either location.

Now moving about 185,000 bbl. of crude oil daily, the Rancho hauls most of its oil in 100,000 barrel batches, delivering along its final 32 miles to lines of owners. These are Ashland, Nantucket, Pan American, Phillips and Sinclair Pipe Line companies; Crown-Rancho Pipe Line Corp, and Shell Pipe Line. Nantucket is a subsidiary of Eastern States Petroleum Co., Inc.

ILLUSTRATION CREDITS

Front Cover—Federal Electric Products Co.

Page 7—Dowling in the Farm Journal

Pages 10 and 11—The Dow Chemical Co.

Page 18—Northwest Nut Growers

Page 22—Inserting and Mailing Machine Co.

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TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America or elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $6.00 which are paid by the member to his local Section. Members wear the chromium and vermillion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers, and economists that became known in 1920 as the Technical Alliance — a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every State and in every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher, or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

The TECHNOCRAT

Offering to the American public a medium by which it can learn the facts regarding the transition period in which we are moving toward a New America of technological abundance.

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OPERATIONS

Past — Present

The technological application of physical science has become the major ferment in social change. Man in his struggle as a social animal has been dominated and ruled down through history by two orders of knowledge. The governments and social structures of past centuries were the cumulative accretions resulting from mankind producing his physical wealth with human toil and hand tools.

The new social world differs in its structure and operation. This world produces its physical wealth by the degradation of extraneous energy through technological equipment and processes.

As more and more energy-consuming devices are installed, consuming ever greater quantities of extraneous energy, more and more human beings will be eliminated as human effort contributors in the production of wealth. As more technology pervades the Continent of North America, more and more North Americans will cease to be toilers and will be elevated to the high social level of being consumers of abundance.

— SECTION STAMP —

The TECHNOCRAT

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SEPT. '54

SAMPLE COPY

IN THIS ISSUE:

IN THIS ISSUE:

- WHAT LIES AHEAD
- The Delusion of Ownership
- Too Many Jobs
- North American Biological Problems
- Political Americana

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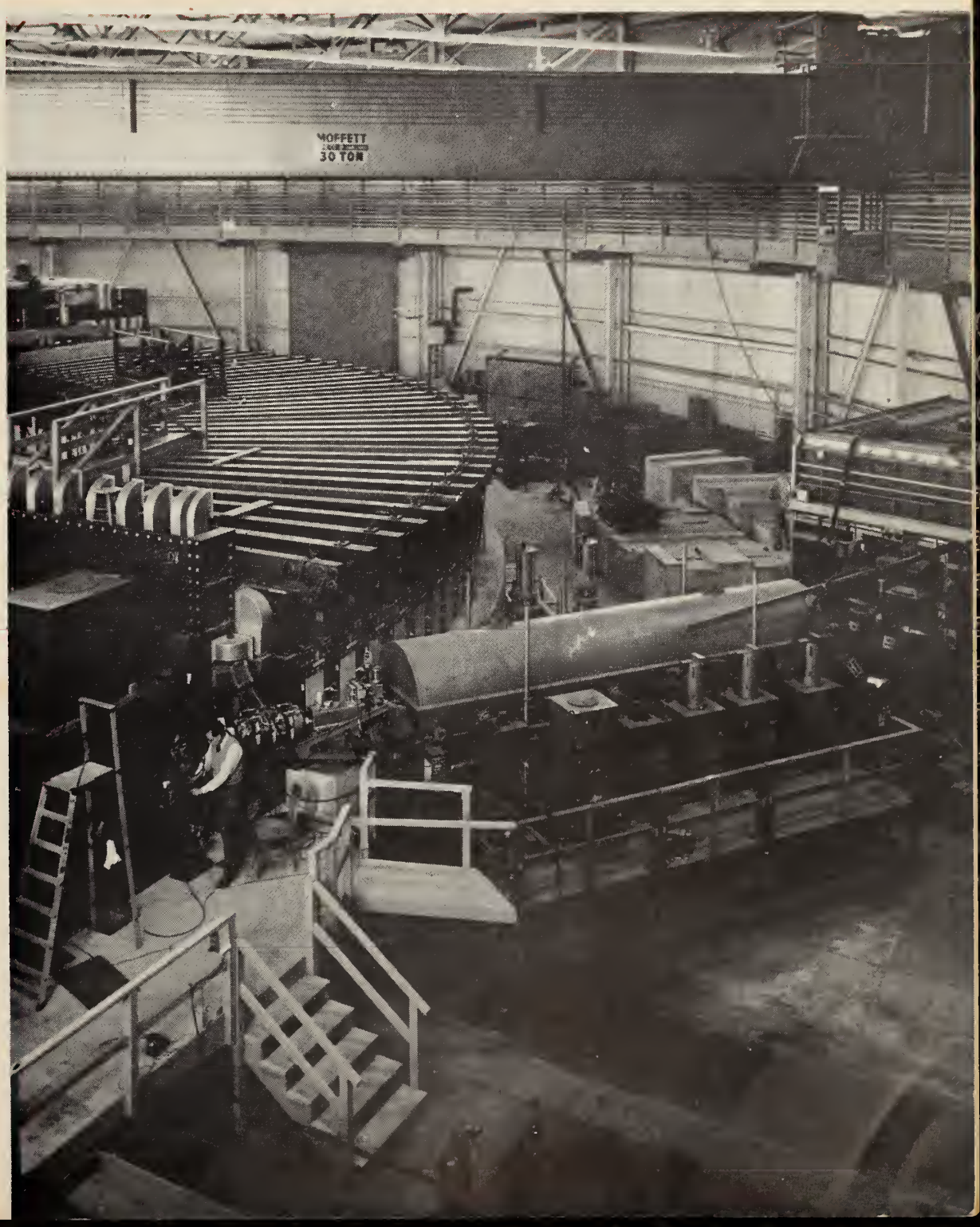

The TECHNOCRAT

SEPTEMBER, 1954

Editorial

LAUGHINGSTOCK -- WHO?

The old axiom "He who laughs last, laughs best."

This is now the prerogative of the Technocrats. For the past 20 years Technocracy Inc. has been consistently preparing the people of this Continent for the social change which is being brought about through the increasing use of science and technology.

Now, in the June issue of Popular Mechanics is the following statement:

> Today's automatic machines with their electronic brains are the advance guard of a new army of workers. An appropriate word has popped into the language to describe these "synthetic" workers and thinkers, a word that likely will be as commonplace as the word electronics within five years. That word is automation.
>
> Down-to-earth engineers, supervisors and even businessmen are becoming experts on automation. This is not a Rube Goldberg dream nor the zany "Technocracy" of the early '30s, but a new Industrial Revolution, a revolution that is coming slowly but inevitably.
>
> The first Industrial Revolution replaced man's muscles with machinery. The new revolution, most automatic experts firmly believe, will replace man's routine brainwork with machines. Dr. Ramo says:
>
> "Surely no one can deny that the replacing of man's brains will effect some sort of revolution. The biggest factor in changing all business and industry must be the coming of the age of synthetic electronic intelligence. He who would dare to stand up and contest such a statement runs the risk of having his brains among the first to be replaced!"—

Fortunately North America need only apply the technological technique to its social problems. It must not rely upon any "zany" scheme — based on opinions instead of facts. It is notable that everything which has contributed to a higher standard of living is a product of technological application; but everything which has remained in the hands of the zany Price System has either shown no progress or has deteriorated.

Sane and Simple Method

Technocracy has by-passed all the philosophical schemes of the zany Price System and proceeded directly to the sane, simple, intelligent approach to the problem of social operations on this Continent. The Ship of State, The United States, has been in existence for more than 175 years and has been tossed about recklessly by the whims of philosophical opinion. Zany political approaches to the problems have involved it in eight major wars, and several minor ones; these have squandered its forests, wild-life, and mineral resources; these have messed up the surface with a hodge-podge of buildings, fences, roadways, and real estate values. Now, the Ship is perilously threatened by raging storms of hate, suspicion, intrigue, struggle for power, international banditry — of fitting but disgusting development of the philosophical machinations of the zany politicians who are at the helm, and another blot on the Price System chart by which it is being navigated.

Technocracy invites the citizens of North America to abandon the zany schemes for regulating other human beings and to join it in promulgating a technological governance of the social mechanism. The physical factors of North America have reached such magnitude in energy conversion that it no longer can be trusted to politicians. They involved this Continent in World War II and are still looking for more war or any outlet to perpetuate this 'Status Woe.' America's technological destiny is abundance, security, and freedom from toil; but this destiny will never be achieved under the Price System or under any subsidiary scheme. If we continue to follow the zany schemes, it will lead only to chaos.

Technocracy Inc. invites you to join the Technocrats who are having the "last laugh."

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WHAT LIES AHEAD?

By Howard Scott, Director-in-Chief, Technocracy, Inc.

If the economy of the U.S.A. is plagued with abundance when the weekly kilowatt-hour consumption runs between 8 and 9 billion, what will we face in 1956 and 1957 when the country will have the capacity to provide a weekly kilowatt consumption in excess of 20 billion?

THE prosperity of United States during World War II and the subsequent postwar boom have carried with them enormous increases in production, development of new fields and fresh endeavors, and expansion along the entire economic front. Coupled with all this, there has been an increase of 29 million in the population since 1940. All of these factors have contributed to making the America of 1954 greater in numbers of people, wealthier in products and services, a nation so sound in spirit and in flesh that it can look forward with confidence to continuing increases over the next two decades — to that day when the population of United States passes the 200 million mark.

The periodicals of national business can best be described as gloating with glee over the yearly crop of nearly 4 million American babies. As each year ushers in its crop of new Americans, private enterprise points out with considerable satisfaction that the baby crop is an assurance of increasing business prosperity for, as these future citizens approach maturity, they will become customers for more and more products. And as most of these babies will be produced by families below the top 20 percent income group, it follows logically that most of the crop of oncoming Americans will not be born of parents whose economic wherewithal will be great enough to endow them with sufficient capital to pay for everything in cash. It then naturally follows that over 80 percent of these new Americans can look forward to the prospect of being installment buyers.

During the past two decades, our national economy has been managed by a very interesting process. Our National Administrations, regardless of political party, have seen to it that in collecting taxes from the individual directly by means of the withholding tax, and indirectly from every consumer by means of the Excise Tax, they have been able to collect more billions in twelve years than were collected by all of the administrations previous to that time. The terrific amounts collected were of course dependent on maintaining a continuous expanding economy with prices, profits, and wages ever spiraling upward; for, as the taxes were a percentage on total wages, total prices, or total profits, the greater the totals, the greater the national 'take.' In the propaganda of the press, this period has been erroneously referred to as one of national inflation. The demands for increases in rates, prices, and wages were all alike based upon the claim that they had to be increased in order to meet the inflationary rise in the high cost of living.

In the middle 1930's, the total currency in circulation was only slightly over $7 billion. Today, it tops $29 billion. In 1929, the gross national product of U.S.A. hovered around the $82 billion mark; in 1953, the U. S. economy was operating at the rate of $367 billion gross national product. It will be noted here that the gross national product of today is more than 400 percent that of 1929. There has been a similar increase in the currency in circulation. Nevertheless, it is misleading to designate this period in U. S. economic history as an inflationary one.

Correctly speaking, monetary inflation can only occur in a national economy when there is a dearth of physical goods and a scarcity of money in circulation, and the Government resorts to the printing of currency in a vain attempt to catch up to the runaway prices of galloping scarcity. No such thing really happened in the war and postwar boom of United States. It is true that during the war under enforced war measures apparent scarcities were created, but the purchase of materials could mostly be met by undercounter deals or the payment of premiums.

It is interesting to observe that war employment and war production reached their peak in November, 1943, thereby proving Technocracy's contention stated long before the war that a war economy of United States could not operate its productive capacity at anything even approaching full load for more than two years.

The economic process under which this country has been operating during the war and the postwar boom can more correctly be defined and described as a process of national credit amplification, wherein national credit was utilized to provide the financial wherewithal to instigate and develop the expansion of physical plant and the development of resources. National credit was used to underwrite big private enterprise. It was used to build the plants required by the war industries. It took a starter of $2 billion

to develop the atomic bomb, and $12 billion more to continue further development of our nuclear fission and fusion. New resources were developed and old ones were expanded. Private enterprise from the 'dirty thirties' on was stumbling along and practically on its last legs. It was rejuvenated and rehabilitated by the $300 billion or more national credit which was pumped into its ailing system. Since the war, the national budget has risen to $70 billion and more a year.

This is an amazing process. Where did this money come from? The money upon which the national credit was based came from the collection of taxes. The people of United States have paid their taxes, bought bonds, and paid out billions in Excise Taxes in their consumption of liquor, railway fares, theater tickets, telephone calls, hotel rooms and other purchases.

When the Government engages in monetary inflation, it either prints new money or overprints more zeros on the existing paper currency. Theoretically, there is nothing that occurs in the physical processes of operating a national economy that would prevent a sovereign state from adding a hundred zeros after the figures on its currency. True, it would bankrupt that percentage of the population deriving its livelihood from a fixed income such as pensions, retirements, bonds or trusts, but the major portion of the economy could continue because there would be no changes whatsoever in the physical processes of production and distribution. There would occur of course a rapid remarking of inventory and price tags as the prices rose daily but, while this would be inconvenient, it would create no fundamental change in the processes of producing and distributing physical wealth in that economy.

In the United States of America, in its second decade of credit amplification, there is no danger of monetary inflation. There is the far greater danger that credit amplification will be continued and that attempts will be made for an even greater increase of this process in the future than has occurred in the past. Hitler utilized this process in fascist Germany to enable corporate business of his privileged group to purchase the control of operating entities that had previously belonged to the federal government of Germany. But Hitler was a piker. The use of this process in United States has gone far beyond anything attempted in Hitler's Germany and has even exceeded the wildest dreams of those who originally instigated it and promoted it here.

Here in the United States, this process has enabled the National Administration to collect the greatest dollar volume of taxes ever collected in history. This has been used to subsidize private enterprise. It has enabled private enterprise to liquidate its obsolescence, and to increase its volume of business sufficiently to repay the original debt of loan. This process resulted in other subsidies which naturally followed. Through supported markets and increased prices, it enabled private enterprise, which had been paid to do its job in the first place, to collect a second time through the instrumentality of price rises, rate increases, Government commodity purchases, general market support and tax write-offs.

If this process of credit amplification can be continued in this national economy of ours until 1956, it will bring about a resultant condition totally different from any process of monetary inflation; for, the process of credit amplification that can pour $25 billion or more a year into the capital goods industry will, through its increasing use of technological equipment, profoundly alter the entire production of physical wealth and its distribution. This process in its last stages will bring about the need for such huge investments by private enterprise itself apart from Government support that only the very larger corporations will have sufficient capital and credit to enable them to go in for the new technological expansion that will be forced upon them. This of course will tend to make the large corporations larger and to increase their productive capacity to such an extent that more and more smaller corporations in the same field will be liquidated as being uncompetitive.

The very large corporations that have huge capital reserves or credit sources can liquidate their obsolete plants and erect entirely new installations one hundred or one thousand miles from their old plants. There are already indications that this phase of the process is well under way. The General Motors Corporation has made the public announcement that it will spend $1 billion 500 million for new plant expansion and new equipment in the next three years. Ford Motor Company has just completed a brand new engine plant in Cleveland and it has announced

Producing the tremendous output of electric power — and producing it economically and efficiently — has called for modern 3,600-rpm steam turbine-generators more powerful than any others yet in operation. Designed by General Electric, the initial installation will consist of four 156,250-kw. units. Two more will be added later. The combined output of the six units will be nearly a million kilowatts — enough to supply an entire city the size of Detroit.

Successful development of these record-breaking generators was accomplished by combining already proved G-E designs with new materials and new manufacturing techniques. Equally significant, in view of the urgency of the project, is the speed with which they were developed. The first unit was designed, built and shipped in only 18 months.

LATEST G-E technical developments used in the big new Joppa electric generators include a recently developed aluminum alloy, Cond-Al, for rotor windings. Much lighter than copper and practically as strong, Cond-Al overcomes problems of high centrifugal forces which had previously limited rotor size.

an expansion program of seven more new plants. It is interesting to note that finally, at long last, the high cost of bribing the millions of workers of organized labor with an annual wage increase has resulted in pricing the products of their labor out of the market or rendering impossible the sale of their products to millions who cannot afford the high prices. Private enterprise in United States (big private enterprise, that is), swollen with profits and reserves, now is in a position to undertake the reduction of production costs by the large scale construction of 'automation' plants.

Technocracy Poses Questions

Technocracy predicted that private enterprise would be compelled to do this and for twenty years the advertising fraternity, the 'kept' boys of business, have been ballyhooing every day and every night the propaganda of private enterprise that 'machines make jobs.' Private enterprise is being forced by the march of events, not only to build machines that eliminate jobs but, to undertake the construction of whole plants and industries that eliminate jobs. The American public had better realize that, when this process begins in one industry under the impetus of the two largest concerns in that industry, it will be only a short period of time before the entire industry has to reorganize itself on the basis of the new automation plants and processes. They can liquidate old and obsolescent plants with a high labor employment; they can build new plants that can approach or exceed an investment capital in new equipment of $3 million per employee. With this capital investment in technological automation equipment, they could achieve even greater production than is now attained in their most efficient plants, but their employment in their physical production would be less than their accounting staff.

The present staff of accountants and bookkeepers must not assume, however, that their services are immune in this process. In any large scale technological automation, the volume of physical data that must be recorded per minute reaches such a magnitude that it is no longer possible to even attempt it by the manual operation of any accounting or bookkeeping staff, no matter how efficient. With such volumes and such speeds, ninety-five percent of all clerical accounting, recording, and bookkeeping staffs will have to be replaced by continuous computers, recorders, and totalizers. Superintendents and managerial supervision can likewise be reduced. So this process will not only decimate the ranks of union labor but it will also introduce a wholesale slaughter of jobs among the white collar classes of the clerical workers, the professions, the foremen, superintendents, and all managerial functions.

Stop and think! The way is at last open for great private enterprise to enter the kingdom of heaven. It can rid itself of most of its employees, workers and clerks, dispense with most of its superintendents and most of its vice-presidents. This is a charming picture and an ideal one, because the large corporation, if it carries this process to its ultimate conclusion, will no longer be bothered by labor contracts, strikes, workers' compensation, health programs, pensions and retirement. What a prospect for the future!

In 1953, the weekly consumption of kilowatt-hours hit an all time peak of nine billion. Installed capacity in the beginning of 1953 passed 78 million KW. The public utility industry has planned a program of expansion that will complete the additional installation of 42 million KW sometime during 1956. This will be a total capacity for the public utilities of United States in excess of 120 million KW. Theoretically, this grand total of installed capacity could be operated at full load and therefore would be capable of producing in excess of 20 billion kilowatt-hours per week. It is well to realize here that we have been delineating only the expansion in generating capacity of the public utility power houses. It naturally follows that industry will have additional generating capacity included in its expansion program. If the economy of U.S.A. is plagued with abundance when the weekly kilowatt-hour consumption runs between 8 and 9 billion, what will we face in 1956 and 1957 when the country will have the capacity to provide a weekly kilowatt-hour consumption in excess of 20 billion? Kilowatt-hours have been displacing man-hours at a steadily increasing rate for the past forty years. We are now entering the stage of maximum acceleration and in the next five years man-hours will be displaced by kilowatt-hours faster than at any time in our history.

Over the last forty years, the introduction of extraneous energy and technological equipment has fought one battle after another against the consumption of human toil in the production of physical wealth. The twelve hour day and the eighty-four hour week once ruled in the steel industry, agriculture, and other production lines. The twelve hour day and eighty-four hour week have disappeared long since. The work day is shortening and the work week is shortening too. American industry today has difficulty in maintaining a five day week and, in spite of its sales and promotional advertising, it is finding the eight hour day too long. Many fields are finding it difficult to maintain even the seven hour day and the thirty-five hour week.

Private Enterprise Ballyhoos

The technological capacity of industry in the United States is capable of producing an abundance of war material and butter simultaneously. Technocracy asks the question, 'What are you going to do when the kilowatt-hour consumption begins to approach 20 billion per week? What hours per day, and what days per week are going to be worked?' Technocracy poses the problem as it has these many years; namely, that no reduction of hours or work days per week will provide a solution, as our economy produces more and more abundance. Where are we headed, if we continue to increase our pro-

(Continued on page 10)

Nutritionist States!!!

Los Angeles — If humans kept their bodies in chemical balance they would grow old with less mental and physical deterioration.

This is the opinion of Dr. Tom D. Spies, 51, internationally noted nutritionist, who believes many people start to break down chemically in middle life and become nutritional cripples.

Such persons, Spies explained, have been undernourished for years. They go to pieces chemically, he said, because their diet lacks the proper chemical nutrients such as vitamins and minerals. Some of these persons, however, are unable to assimilate or store the necessary chemical constituents which make their body cells function properly. Secondary diseases, combined with nutritional failure, can further interfere with the accumulation of chemical reserves.

Spies and a group of associates subscribe to a new trend in medical thinking which regards all disease, including cancer, as chemical disturbances, subject to correction by chemical means. There is wide medical support for this belief. Spies gained recognition for his work in conquering pellagra and tropical spruce. Both of these disturbances are dietary deficiency diseases, characterized by severe anemia and other debilitating complications.

New Use for (Hot?) Air

Compresed Air Magazine — A push-button system of blowing concrete by compressed air through piping from underground mixing stations into construction forms is expediting The International Nickel Company's program of mining by induced caving at its Creighton Mine, Copper Cliff, Canada.

To stabilize areas of the mine worked and abandoned 40 or more years ago and to utilize old openings in which the timber supports have rotted and collapsed, extensive concreting is necessary. Very slowly and often only with the greatest difficulty could concrete be delivered to these locations before the air-borne system was adopted. Several thousand bags of cement a month are now being used underground to build slusher stations and drifts, box-hole brows, switchrooms and other installations required to meet the caving project's quota of 12,000 tons of ore per day.

. . . The men operating the concrete placers take pride in the remarkable performances recorded to date. Best delivery above the starting point so far was a total of 1315 feet from the 20th level placer, consisting of 875 feet on the level, up 210 feet on a 47-degree incline, 100 feet on the level, up 50 feet at 90 degrees, and finally 80 feet on the level. The 6th-level station made the longest "down" delivery to date, a total of 1670 feet from the placer into the forms for a new slusher station on the 14th level.

Business Factors

The Cleveland Trust Company Business Bulletin, June 16 — It appears that three important factors, which have previously supplied a strong upward push to postwar business, are no longer operating in that direction and probably will not do so in 1954. . . .

. . . The three factors already mentioned as no longer contributing any important upward push to business, have worked out that way in 1954 to date. One is the earlier shortage of goods, which has given way to plentiful supplies. Thus during the first nine months of 1953 industry produced more goods than it sold, resulting in a steady build-up of total business inventories. With sales dropping off, inventory accumulation then turned into liquidation which has continued over the past seven months. In terms of the gross national product, this change in the inventory situation has been the biggest single element in the decline of business activity.

The second factor is defense spending by the Government. In 1954, thus far, such expenditures have been running at an annual rate of around 10 percent below the same period in 1953. Whether that will continue will depend on world developments.

As to the third factor, namely business spending for new plant and equipment, the Government estimates now available indicate a slight drop in the first half of 1954 from a year ago, and a moderate decrease for the third quarter. For all of 1954, a decline of around 4 or 5 percent from 1953 is anticipated. . . .

Try Paying 'Em!

Los Angeles Times — A growing shortage on the high school level of science and mathematics teachers is causing serious concern among members of the National Science Teachers Association.

Robert H. Carleton, executive secretary of the association, points out that colleges are turning out fewer science teachers than teachers in any other field. And this is at a time when the need for instructors in these fields is increasing as we enter an expanding technological era.

"Not nearly enough capable boys and girls are now being motivated to take those science and mathematics courses which will enable them not only to enter college but also to pursue scientific and engineering courses," Carleton stated.

This is an educational problem which must be met if the nation is to keep its lead in the world in these two branches of learning which are essential to our civilization. It is a problem for which both educators and the general public must seek a remedy. What we call our American know-how has its basis in mathematics and science. It is not some mystical native genius which comes to us without teaching and study.

THE DELUSION OF OWNERSHIP

It seldom occurs to most Americans that the ownership or the possession of things is incidental to the real objective of the present mode of social operation, but that concept or frame of mind is necessary in the perpetuation of the Price System.

The American people are great believers in the concept of property rights and the ownership of things. They have more things than any other nation of people in the world. On the average, Americans have per capita more automobiles, homes, deep freezers, mink coats, telephones, televisions, stoves, toasters, garbage disposal units, shoes, suits, living and dining room suites, gadgets, and sundries. And they probably consume more food and liquor than any other nation.

Most Americans are satisfied as long as they are allowed to pursue their favorite ambition of accumulating things, whether these things happen to be certificates of debt or material objects. They will do practically anything, work diligently, honestly, and even sometimes dishonestly, to obtain those things which they believe will make life more enjoyable and provide them with greater security. The American people will go along with any expediency which appears to them to be in their present or future interest.

The people of this nation are forever being reminded that they have the most of everything as compared with the rest of the people throughout the world. Granted that Americans do have the most of everything, just what is the social significance of this ownership of things? What do the American people 'own,' and what do they 'have' when these things are in their possession? And is their belief in the ownership of things the same as the actual workings of property rights and ownership under the present economy? If the answers to these questions are in the negative, then we can conclude that most of us have been under a misapprehension as to the importance of owning things.

In the clarification of the term ownership, let us use as an example something familiar to most of us. As we know, this is considered a nation of home owners. Under this system a person is the rightful owner once he has the deed and clear title to the property. But ownership in such case does not entitle the 'owner' to do as he pleases with the property. There are certain obligations, rules, and regulations with which the home owner must comply. In the first place he must pay property taxes on the home or it will be confiscated by his duly elected 'termites.' Before the home owner makes any improvements or additions to the property, he must receive a permit, complying with the codes of the community. After making the improvements, he is liable to pay more taxes as the value of the property increases. But if the 'owner' does not keep up the necessary repairs, the house will probably deteriorate beyond human habitability in a matter of a few years. The fact that a person 'owns' a home or any other kind of property does not relieve him of the obligations which go with ownership. He must continue to pay a 'pound of flesh' to the exponents of ownership. It must be clear by now that there is a difference between what an individual believes ownership to be and what amounts to mere possession. Carried to its ultimate, ownership cannot be realized, but continues to remain a fancy of most Americans.

A similar situation exists for those millions of Americans who are in the process of becoming home owners. Before they can promote themselves into that 'select group' of home owners, they must meet the requirements as stipulated by the financial and loan institutions. In the process they must pay the agreed upon price, interest, and other costs for what has been called a house. For the next ten, twenty, or thirty years the mortgagor has the dubious privilege of paying the principle, interest, and taxes on the house, usually some two hundred percent above its actual value. By the time the mortgagor becomes a home owner, he still has what could be referred to as a dilapidated, obsolete structure. After the mortgagor makes the final payment on the house, he then takes on the many obligations, already mentioned, which go with home ownership. Yes, there is no place like home.

If owning a home is one of the most important objectives of millions of American families, it is obvious they will have to spend the greater part of their lives to meet this one obligation. It means that they must contribute many man-hours of employment (technological automation makes this impossible) and the debt tokens received from same to the loan and financial companies which have not in the least contributed anything to the actual construction of the homes. The promotion of home ownership is just one of the means used by the vested interests to buy and to sell debts with the expectation of the greatest possible returns without in any way taking the risk and the liabilities which go with possession. Home ownership may be important to the manipu-

lators of the Price System, but not to the millions of home mortgagors and owners.

In the acquisition of things the 'average' American finds there are many deterrents in his way. One of the biggest obstacles is taxes. Unless John Doe can afford an astute 'liaryer,' CPA, or has a friend in the revenue departments, he must pay about one-third of his income to help defray the expenses of all levels of government. Before he can purchase the things he needs and wants, he must give a considerable amount of his paycheck to perpetuate an obsolete, hodge-podge political system. And from such a hodge-podge arise ever increasing inefficiency and larger social problems which call for increased appropriations or more taxes, resulting in less take home pay to acquire those things which are supposed to make life easier and more enjoyable.

Purchasing Power

There has been much publicity given to the increased amount of purchasing power the American taxpayers will have in their pockets as a result of the reduction in excise and income taxes. According to the reports, tax reductions of this nature will amount to about $7 billion. Of the total value of the goods and services being produced at this writing, these tax reductions will amount to only about 2 percent, hardly sufficient to reduce the inventories on hand let alone help in the purchasing of present production. As usual, another political expediency has been too little and too late to cope with the abundance now being produced by our technology.

But the 'reduction' in federal taxes is filled with deception and gimmicks. It should be well known by now that those in the high income group will receive the most benefits from tax reduction, not the bulk of the consumers in the lower income brackets. While the 'representatives of the people' dissipated a merry-go-round of words about increasing the tax exemption so the 'common man' would receive a few crumbs during this election year, the issue had become all too clear long ago. If there has been or will be any decrease in taxes on the national level, the other levels of government will continue to increase taxes which will more than nullify any such gains from federal tax reductions. And the drastic displacement of labor now taking place through the use of modern machines means most Americans will not receive any benefits, even if there are any tax cuts. No matter how you look at it, the American consumer will have less and less to buy the more and more things produced.

It is interesting to note that the biggest benefactor from tax cuts has been and will continue to be Big Business. Most of the large business and industrial concerns will be in the position to show enormous profits in spite of any sharp drop in the value of production because the excess profits tax has been abolished. But what benefits will the 'average' American receive when his income for the year drops sharply? While the American people are giving their undivided attention to the acquisition of things and being assured by the apologizers of free enterprise that the economy is only in a period of readjustment, the industrial and financial interests of the nation, knowing what really is happening, demand and receive, as usual, billions of dollars in giveaways, subsidies, and tax cuts. Of course Big Business is telling the American public that these billions will go into research and modernization so that free enterprise can produce better things for better living. It's still the same old line: "What helps business helps you."

Before millions of Americans can purchase their share of things, they are confronted with certain impositions and a few parasites of the human species. In order to receive sufficient debt tokens to purchase the things they need and want, most Americans must work at a stipulated wage per man-hour or on a salary basis. But before they receive their paycheck, numerous deductions are made which reduce the take home pay considerably. (If this trend continues, it will be much wiser to receive the deductions than the take home pay.) When they make their purchases of goods and services, they must pay a price for those things which have been marked up to include a maximum profit or 'take' for the manufacturer, agent, broker, salesman, representative, wholesaler, and the retailer. If they happen to be among those millions of Americans who are buying on the installment basis, they must pay interest and other costs that add to the cost of the product. Also included in the cost are hidden as well as some visible taxes. Whether they pay cash or 'on time' for the things they strive to 'own,' they are not through paying on these items yet—the manipulators of the Price System have seen to that. They are then required to pay personal property taxes or license on the things they have acquired, not to mention the cost of repairs or the replacement of the shoddy product sold to them in the first place. It is evident from the few facts presented here that the American people are spending a greater part of their effort and time purchasing intangibles rather than physical objects. Instead of getting something for nothing, the Americans are getting nothing in return for something.

Social Security Misnomer

During the time the American people are attempting to acquire those things which are supposed to bring them greater comforts, they are offered many schemes, too numerous to mention in detail, to provide security some time in the future. One of the most prominent of these schemes happens to be old age assistance under Social Security. When Social Security came into effect in 1937, it was announced and hailed as an answer to the 'common man's' prayer. The American people were sold on the idea that one of the most important objectives of the social security was to provide those covered by the act with sufficient income at least to meet their needs when they became old (or should we say no longer

(Continued on page 22)

Political Americana

Sold — To the Highest Bidder

Labor — Congressman Yorty (California) calls attention to an example of one big reason why the people lose so many battles against wealthy interests. The latter can and do hire the highest-powered lobbyists and propagandists.

Back in 1935, Yorty recalls, "I was one of a group of California volunteers who worked hard to save the Central Valley project. Our campaign was managed by the now-famous public relations team of Whitaker and Baxter, and we won despite the much better financed campaign of the opposition.

Having seen Whitaker and Baxter in action, the private utilities promptly engaged their services. They went on to become the highest paid public relations firm in the nation, when they represented the American Medical Association.

Grain Storage Football

United States Department of Agriculture. Washington, May 28 — USDA to again accept applications for grain storage contracts:

The U. S. Department of Agriculture today announced that applications for grain storage occupancy contracts between the Commodity Credit Corporation and commercial firms will again be accepted, beginning immediately, in order to encourage the construction during the coming months of additional public commercial facilities for the handling and storage of grains and oilseeds in the storage short areas of the U. S.

An occupancy contract with CCC does not provide for automatic yearly payments for storage nor does the contract require the CCC to use the facilities for the storage of CCC-owned grain. The contract, under three plans, provides for payments to warehousemen if occupancy falls below certain levels. Under one plan, the CCC underwrites up to 75 percent occupancy for three years and 40 percent for the next two years. The second plan provides for occupancy up to 60 percent for five years, and plan three for occupancy up to 50 percent for six years. Any of the three plans may be selected by operators of facilities. The yearly rate per bushel for unused space under the contract will be 75 percent of the annual applicable wheat storage rate prevailing during the contract year under the Uniform Grain Storage Agreement.

The facilities built under the grain occupancy program will be used for the handling and storage of wheat, corn, rye, oats, barley, grain sorghums, flaxseed, and soybeans in areas where more storage is urgently needed.

Business a la Mode

Labor — Senator Margaret Chase Smith of Maine is a Republican, but she spoke some hot words in the Senate this week about the way some things are going under the present Administration.

Mrs. Smith recalled recently, in a "shocking and unprecedented action," the Navy Department took contracts for three destroyers away from the "lowest bidder" — the Bath Iron Works in Maine — and awarded them to a higher bidder, "at an extra cost of $6.5 million to the American taxpayers." The Maine senator protested against that but, she said, it was only the beginning.

"This morning, the Chief of the Bureau of Ships informed me that the Bath Iron Works would not get any of the awards for destroyer escorts, because Bath was not the lowest bidder.

"What is the procurement policy of the Navy Department?" Mrs. Smith demanded. "Why did it three weeks ago refuse to give the destroyer contract to the lowest bidder — but now plan to give the destroyer escort contract to the lowest bidder? What has become of the promises made by the Eisenhower Administration, for more economy in our government and less waste in our defense forces? What sincerity is there in the Defense Department's claims of 'more defense per dollar?'" "The Navy Department," Mrs. Smith indignantly declared, "has indulged in serious discrimination against the workers at the Bath Iron Works, the best builder of destroyers."

Johnny Comes Home — To?

Los Angeles Examiner, Washington — We keep hearing about the cost of living zooming ever upward, but disability pensions to our war disabled seem to be taking the opposite course.

Tubercular veterans, for example, continue to be haunted by the spectre of insecurity due to sharp reductions of their compensation.

When these men piled into their service garb, they were young and healthy. They throbbed with the spirit of patriotism. Everybody was their friend.

How different things are now!

A notice from the Veterans Administration advised him of a forthcoming cut of 50 percent. Which means he'll have to try to keep body and soul together on $75 a month.

What Lies Ahead?

(Continued from page 5)

duction and consumption of extraneous energy in total volume and per capita? For the long run there is only one answer. Within the next five years, if the United States continues its expansion of the capital goods industry and its conversion of extraneous energy, we will arrive at that technological and social dilemma where we will, with limited employment of a minority of the adult population, be capable of producing and distributing an abundance of physical wealth to everyone without the services of the adult majority.

For the short term, an analysis of the total working force as reported by the Department of Commerce for January, 1954 is highly significant. Of the more than 62 million total labor force claimed in 1953, the Department of Commerce report states that 48.7 million were working 35 or more hours per week, while 6.9 million worked 15 to 34 hours a week and that a further 2.1 million worked from 1 to 14 hours a week and the report lists another 2 million 'with a job but not at work.' This evidently consists of people furloughed, sick, laid off temporarily, or on vacation. It should be observed that only those who work 35 hours or more a week are considered in the labor force report as being fully employed. In round figures there are 14 million partially employed, not at work, furloughed, or 'unemployed.'

'Unemployment' is a technical term that on the statistical tables apparently is only inclusive of those who have applied for unemployment compensation. It is even doubtful whether the 'unemployed' category includes those who have run out of their unemployment compensation, but it should be noted here that only 35 million of the employed workers of the United States are eligible for unemployment compensation. Therefore, if our total labor force exceeds 62 million, there are 27 million not covered by unemployment compensation. Regardless of what unemployment may exist in this second category, it probably would not be reported as officially unemployed because none of them would be eligible for unemployment compensation, although the rate of unemployment would be approximately the same in both categories in any recessive economic period.

In every major field of production, whether agriculture, mining, or manufacturing, the trend is the same. Technological progress is steadily diminishing the total man-hours in one field after another. Twenty years ago, in 1933, Hawaii produced a record raw sugar crop of 1,063,605 tons. This record was unsurpassed until 1953 when Hawaii produced 1,099,083 tons on 25 percent less land and with 50 percent fewer employees. Agriculture in general has dropped more than 3 million employees since 1946. Agricultural production can be increased any time the compulsions and incentives arise to provide the potential market but agricultural employment will continue to decline. The total number of farms will continue to decrease while the size of the average farm will continue to increase. Bigger and better agricultural equipment will enable us to produce more and more on less acres with less employment. The same trends are visible in mining, highway construction and manufacturing of all kinds. The 'automation' plants will accelerate the trend. Foreign trade and military aid abroad will not reverse progress in this direction.

What of the road ahead? In 1952, the voters of the United States, in deciding it was time for a change, voted in the first Republican Administration in twenty years. The elections of 1952 came in the midst of the postwar boom and the wave of the Korean War prosperity. Now in 1954, the fighting in Korea is over and our national prosperity is cracking at the seams. Our national economy is plagued with the surpluses of abundance that we dare not consume at home and that we cannot export abroad. For years the American citizen uttered jibes about the Danes who raised butter at home, exported it to the foreign markets of the world, and ate cheaper margarine themselves. We used to laugh at the Danes but now, here in the United States, we are producing more butter than ever before but the public is eating margarine and we cannot export our butter; so the United States Government buys it and stores it in order to take it off the market. The Danes ate margarine so they could sell their butter abroad. Those silly Danes! The American eats margarine but he cannot consume his own butter production at home and can't sell it abroad. We Americans pay for the butter we don't use and then pay to store it. Who is looney now?

This Republican Administration is an administration of Big Business loudly proclaiming that it stands for the policies of private enterprise and the perpetuation of national operation on the fundamental principles of free enterprise. 'What is good for General Motors is good for the country' is a slogan that will long be remembered. This business administration has as its primary purpose the reduction of the government in business and the increase of business in government. It will seek by every means, by every maneuver and political legerdemain to skim the cream from all our national resources directly controlled by the Federal Govern-

(Continued on page 21)

Now nearing completion in southern Illinois, the huge electric power plant at Joppa, Illinois, is a dramatic example of the enterprise of electric utilities in undertaking the most colossal tasks in the interests of national progress and security.

Too big for any one company alone to handle, this plant is being built by a combination of five electric utilities under the name of Electric Energy, Inc., to supply enormous quantities of electric power for the Atomic Energy Commission's new uranium refining project at Paducah, Kentucky.

North American Biological Problems

Ancients settled their population problems with war, but we moderns must use a scientific approach to settle ours. If we allow uncontrolled reproduction of the human species to continue its present pace — we face disaster.

The explosive increase in the world's human population in recent years has become the subject of much serious discussion in scientific and social circles. In many parts of the world already seriously overpopulated, the rate of increase is still very high, with no changing of the trend in sight. Here in North America we are only beginning to be cognizant of the problem, as we run out of new land into which to expand, and the cultivated acreage we have so carelessly exploited begins to show signs of not being able to feed a greatly expanded population in the future.

Those of us who are familiar with the laws of biological science know that 'Mother Nature' has a way of adjusting the birthrate to balance the death rate in all of the species of living things which she has 'created.' Whenever a stabilized ecology has become established within any given area, all the forms of life within that area tend to maintain the same relative populations, the birth-rate of each species exactly balancing the death-rate from all causes. This balance can, and frequently does, last for many thousands or millions of years in a given area, until some major cataclysm or climatic change upsets it.

The human animal possesses many qualities completely distinct from those of any other form of life, principally related to the enormous development of the brain, with its abstract reasoning powers, and the prehensile hands so positioned on the body as to come within working range of the eyes. These qualities have from the very first enabled man as a race to upset nature's balance, and so, gradually at first and rapidly of late, to increase his own numbers. The birth-rate has been greater than the death-rate for many thousands of years, but it remained for the very recent conquest of many of the diseases causing high infant mortality to create the present explosive situation.

Elementary Biology

However, there is another problem just recently coming to light, which was so brilliantly presented in the book on "Human Fertility" by Robert C. Cook of the Population Study Group. It was stated in that book that in America and Britain it has been evident for some time that each new generation contained only half of the higher intelligence that was present in the preceding generation, and double the feeble mindedness. This means that as the numbers of the human race increase, the quality decreases.

Of course it still seems possible that the race of mankind could become aware of this circumstance in time. Man is still the only species of life on this planet which possesses the reasoning power which would enable him to meet this problem intelligently. Already, efforts have been made in overpopulated parts of the globe at "birth control," even with euthanasia of the aged and useless elements of the population. Recently, there has been talk of chemical substances which could be added to the public water supply which would prevent conception among all female mammals, regardless of species, for as long a period as was desired by the social controls of that part of the country.

Proponents of these methods of dealing with the problem are neglecting some very important biological laws in their effort to arrive at a possible solution which would not scandalize accepted notions of morality.

Intellectual Degeneration

The most elementary forms of life, the one-celled plants and animals, reproduce themselves simply by dividing in two halves, each half then growing back to normal size and then dividing again, and so on for many divisions. There is no sex in the normal sense of the word, no differentiation between male and female. But, after several or many generations, the process of simple division slows up. Two identical individuals in this "tired" condition find one-another and the process reverses. Instead of dividing in two, these two individuals melt into one. Then, this unified whole begins to divide with renewed vigor for several or many more divisions, when the process is repeated.

When a cell divides, it is not a simple process of just cutting a mass of matter in two. There is an extremely complicated pairing off of chromosomes and genes in polar patterns before division, so that each cell will have its half of every element which was in the old cell. When two cells unite, the reverse takes place, with the added factor that not all the genes and chromosomes are exactly alike in the two individuals, so the new fused cell becomes in some respects a new individual, different from both the "parents" and possibly a little different from any other individual which has ever existed before. In the normal process of natural selection this results in new and superior species of life. It also results in the production of retrograde variations, which tend

to die before they can reproduce themselves. Nature's 'method' is to produce infinite variety, some variations beneficial, some harmful. The beneficial usually survives, the harmful usually does not.

There is no basic difference in the bi-sexual reproduction of human kind and what we have described for the one-celled forms of life. Some of the cells of our bodies reproduce themselves by simple fission all during the life of the individual. These cells remain 'young' but most of the cells do not reproduce themselves and their function tends to slow up; they become 'tired' and eventually cease function altogether, so the individual dies. But, unlike the generalized cells of the one-celled forms, the sexual cells in the human have become specialized, and in a sense are immortal. It is one of these sex cells which 'seeks out' another cell of the opposite sex and fuses with it to become a new individual. When this occurs, cell division with fresh vigor can begin again and the individual thus formed may last nearly another century before it becomes old and feeble.

'Nature' Not Concerned

The mechanism of bi-sexual reproduction is 'Mother Nature's' universal device for compounding variations in individuals. Nature exhibits no concern whether the variations be beneficial or harmful; she has provided only the mechanism for producing variations, both 'good' and 'bad.' The 'good' tend to survive and the 'bad' tend to die off, so the end result is the same as if Nature were concerned — the 'good' is selected for survival and may evolve into something better as time goes on.

Now, the proponents of population control, through the use of contraceptive devices alone, fail to consider the entire scope of the problem. Their theory is that, by preventing conception except when a child is wanted, the population will be controlled. What they forget is that the same proportion of this fewer number of children will be retrograde types — physically and mentally unfit, as has always been present in the race. If all the recent discoveries of medical science are used to bring these unfit children to maturity, of course the overall quality of the human race will deteriorate.

Much could be done by intelligent selection of the members of the population to be used for parenthood, such as has been done for centuries in animal husbandry. This type of solution is still unthinkable in many parts of the world due to religious and traditional notions of morality.

The shock which this thought may bring, when it is proposed to apply it to human reproduction, may be softened somewhat when it is universally realized that Nature did this sort of thing blindly and much more ruthlessly, for many thousands of years, during the aeons of time when a very high infant mortality rate existed. Mankind has suddenly interrupted this 'natural' process through modern hygiene and is now bringing to maturity millions of unfit children who would have surely died in early infancy from natural causes a few years ago.

Thus we see that if mankind is to use his superior intelligence to thwart Nature's age-old checks and balances, he is going to have to consider more of the factors than he has to date. Simple prevention of conception is not enough. Modern scientific methods can determine with great certainty and at an early age whether or not most forms of mental defects are present; and, similarly, the more outstanding physical defects can be recognized and considered. Effective means must be employed to insure that defective individuals do not reproduce.

In the light of this knowledge, let us examine some of the past practices of mankind in controlling his population, both in respect to quantity and quality.

Whenever population pressure began to affect any of the nomadic tribes of antiquity, the usual solution was that of going to war against a neighboring tribe, resulting in victory for one tribe with the consequent decimation of the other tribe, or in defeat and the decimation of the first tribe. This process usually killed off varying proportions of the most fit part of the population of both tribes, leaving the unfit to carry on with the former resources of both tribes. This circumstance may well explain the relatively slow progress made by the race of mankind in improving his situation through use of his brainpower.

Later, as complex civilized societies arose, other factors became evident. The more intelligent portions of the population began to have fewer offspring, in order to better cope with economic conditions. Ascetic ideas of religion arose, resulting in portions of the population being celibate and childless.

Survival of 'Fittest'

The situation did not become alarming as long as the poorer and less intelligent portions of the population were forced to live in such squalor that their high birth rate was balanced by an equally high infant-mortality rate. Only the most hardy individuals survived among the poorer elements of the population. Thus, there was always a continuous stream of new biological vigor coming up from below. But once this new 'blood' reached the upper social strata it, too, ceased to reproduce itself.

Then the unprecedented factor of modern medical science began to be felt in the indiscriminate reduction of the infant mortality rate among all classes of the population. Millions of infants who would not have lived their first year out a century ago are now being brought to maturity. Strangely enough, the greatest efforts are expended on some of the most obvious misfits, to keep them alive at any cost, the most spectacular examples being the efforts to salvage siamese twins lately publicized in the papers.

In the ancient natural process of high birth-rate and high infant mortality, it is true that many of the children who died at an early age were perfectly normal, or even supernormal, but became the acci-

dental victims of infectious diseases. But, in general, the great bulk of the victims of such diseases were in some respect weaker or less fit than those who survived. There is a close correlation between bodily vigor and superior intelligence.

It therefore becomes obvious that whatever solution mankind applies to his population problem, it will have to take account of all the various factors, and not deal with quantity alone. These factors are already pretty well known, and practical experience in dealing with them already well explored in animal husbandry and in research in heredity. Within recent years, many laws of heredity have been discovered by research with quick breeding species such as fruit-flies, where hundreds of generations can be raised and examined in a short space of time. Many of these same laws are known to apply in human heredity, but to examine them through several hundred generations directly would be too time-consuming.

It is becoming increasingly necessary, here on the North American Continent, to make full use of scientific and engineering principles in seeking solutions to pressing social problems brought about by the unique conditions of life in this area. The problems are unique because nowhere else on earth has modern technology so drastically modified the daily life pattern as it has in America. We have indeed reached the point where we dare not allow the slightest interruption in the major technological processes on which our lives depend, particularly those of the vast majority of us who live in large metropolitan centers. The problem of population control, both in quantity and quality, is one of these problems calling for fullest use of scientific principles. Technocracy has been studying all phases of the application of scientific and engineering principles to social problems.

If you have found this article thought-provoking, you will no doubt find many more things of interest in Technocracy, which you can best examine by joining the organization and helping with its work.

—John H. Fulton, 11833-2

As Ye Would . . .

Wall Street Journal, July 9 —— Thomas Murray, an Atomic Energy Commissioner, proposed the U. S. unveil the "new face of war" by publicly exploding a large-scale hydrogen bomb before the eyes of Soviet and other world leaders. The demonstration, Murray remarked at Catholic University commencement exercises, might give their search for peace a "new and needed sense of urgency."

Note: *The expressing of this idea would seem to be out of place in an institution which is presumed to be dedicated to Him who is accredited as saying "Those who live by the sword, shall die by the sword."*

Wanted--More Georges

Tulsa, Oklahoma

To Whom It May Concern:

I am condemned to death by my friends and fellow citizens.

I am past 65 years of age and find that there is no place for me in the active affairs of the society in which I live. I am considered a burden to my folks and my friends. It appears that this society is designed, first of all, for those who have wealth and, secondarily, for those who happen to be profitable to someone who can employ them. The others are not needed and at best are only tolerated. We who have passed 65 without having acquired a stockpile of riches are considered 'through.' We are condemned to a slow, despairing death; and our friends watch us die without too much concern.

Now I have the time and occasion to view with greater appreciation than ever before, the possibility of a society where poverty and malnutrition, crime and sudden death, disease and frustrating old age no longer prevail — a place where people may live satisfying and interesting lives throughout their years. Poverty and need force this subject onto my attention and sustain it there. It is the inspiration of such a possibility that gives me the courage and vitality to carry on without sinking into apathy or bitterness. It gives me something to work for and live for, even though I may not survive to see it reach full bloom.

I see this glorious society of the future only through the adoption of Technocracy by the people of North America. So, though I am condemned to death, my final days shall not be futile nor lived in vain. In them, I shall not merely wait for death, but shall seek life in worthwhile endeavor. I shall devote my time and effort toward the fulfillment of Technocracy's program.

To you, my fellow citizens, whoever you may be, I extend my best wishes for a happy landing in the New America!

—George

Editor's note: George will do what he can, of that we can be sure; but he can't do the job all by himself. He needs lots of help from Tom, Dick, and Harry — and also from you. But he does display the kind of courage and determination that will get the job done. You can't help him by worrying about your own personal problems or by trying to get ahead in the Price System. And charity handouts to the needy resolve nothing. You must think and work for the whole people and the future of a Continent. There is no way of doing this except by joining Technocracy and working like everything to achieve its goal — the installation of a Technate on the Continent of North America.

The RESEARCH BULLETIN

NEWS ITEMS OF SIGNIFICANCE QUOTED FROM THE NATION'S PRESS

King Wheat

North Battleford News-Optimist 1954 — Wheat is still "King" in Saskatchewan. With three bumper crops in a row, wheat has demonstrated in no uncertain fashion that it will take many more oil and uranium discoveries to push it into the background.

Anyone who wants to understand the current wheat "problem" must begin with this figure: 1,783,000,000 bushels in 36 months. Normally Canadian production for a three-crop period would add up to about 1,000,000,000 bushels. This is the size of crop that our grain handling facilities and our customers are accustomed to deal with. When we push an additional 750,000,000 bushels at them in the same period, it is no wonder that some "problems" emerge.

Elevator companies have been trying to meet the storage situation by new building. During the construction season of 1953, the Saskatchewan Wheat Pool added 3,000,000 bushels to the storage capacity of its country elevator system. Pool elevators in Saskatchewan will now provide space for 73,000,000 bushels of grain. This is an increase of 9,500,000 bushels of space since 1945. The Wheat Pool is doing all it can to relieve the shortage of space at country elevators.

In addition to the building program which the Pool has undertaken in recent years, it has also sought additional emergency storage wherever it could be found. At Swift Current the Pool has two hangars at the airport for grain storage. At Yorkton, the Pool has obtained the use of three hangars from the department of transport. All this is undertaken to ease the problem of finding delivery space which every farmer in Saskatchewan faces.

Other countries have experienced good growing conditions in the last few years just as Canada has. World production of wheat has usually run about 4,000,000,000 to 4,500,000,000 bushels a year. In 1951 and 1952, world production was in the neighborhood of 6,500,000,000 to 7,100,000,000 bushels.

In other words, world production has increased by about one-third in the last two years.

Before the second World War, international trade in wheat ran around 550,000,000 bushels a year. Since the war, the international wheat trade has steadily grown to about 900,000,000 bushels a year. . . .

. . . At the beginning of October, 1953, world wheat supplies available for export and carryover were estimated at 1,860,000,000 bushels. If we deduct from this amount, the volume of wheat likely to go into world trade, the world will end the year with about a billion bushels on hand. This is just a little more than a year's supply for the international market.

Once before, during the war, wheat piled up in exporting countries until farmers and others were in despair to know what might be done with it. All that wheat disappeared in a very few months after the end of the war. It was eaten up by hungry people. We still have hungry people who would like to eat some of our wheat if we could find a way to get it to them without *damaging either their economies or our own.*

France's Problem

University of California, Berkeley — France's agonizing indecision over joining Germany in the proposed European Army Plan, so frustrating from the American point of view, must be viewed in the proper historical perspective, advised Dr. Jere C. King, historian on the Los Angeles campus of the University of California. "Three times in a period of 70 years, the armies of Germany have invaded France," reminds Dr. King.

'Automation' In Car Plants

Detroit (AP) — In 1912 it took 14 hours to assemble an automobile. The following year the mechanized conveyor line was introduced to the automobile industry — and assembly time was cut to 90 minutes and less.

"Automation" became the word for it as the idea spread to every production department of an automobile plant. Today it's costing hundreds of millions of dollars.

Faster production, closer tolerances, more rigid inspections (some of them automatic) and reduced manufacturing costs are among the results so far achieved.

Converting raw materials into the finished products with all the machining, drilling, surfacing, polishing and scores of other operations performed automatically, is the present concept of automation.

Automation applied to new heat treating furnaces brings the automatic process to the forge. Steel parts go through a continuous processing in which they are automatically pre-heated, sheared, heated again,

reduced, pressured to shape, trimmed, flanged, aligned and tempered.

Yet another instance is seen in the paint shop. Here electricity does the trick. Parts to be painted are given an electrostatic charge. The paint is given a charge of the opposite polarity.

When the paint is released it is attracted to the parts like a nail to a magnet. Eliminated are the time honored water curtains and spray booths.

The major "automated" operation in a modern auto plant involves engine production. But automation also is being applied to such things as plating. Here the parts of varying shapes and sizes are carried to vats by overhead conveyors, dipped for the precise length of time necessary, automatically agitated, removed, dried and sent on their way.

As in the case of engines, the parts are never touched by human hands from start to finish. In some cases defective parts automatically are ejected from the production line without halting movement for an instant.

While all this is going on in the preliminary phases of automobile production, production engineers are looking ahead to the time when automatic assembly will have been achieved.

Eventually even this will be done.

Government 'Handouts'

Labor —— Of all the Administration's "giveaways," the one considered by the farmers' Rural Electric co-ops as the most brazen is the Interior Department's attempt to hand over to a private utility concern — the Georgia Power Company — all Georgia's share of the power produced at Uncle Sam's new Clark Hill dam on the Savannah River. This giveaway attempt is providing political ammunition for Democrats, not only in Georgia, but in all states which have REA co-ops and public-owned power systems, particularly in the Northwest.

Under an old Federal law, which is still on the books, farmer-owned cooperatives are supposed to get "preference" for power from government dams. The Georgia co-ops expected to get such preference for the Clark Hill power.

Instead, Assistant Secretary of the Interior Fred G. Aandahl, backed by Secretary Douglas McKay, announced that all the power will be sold "at the busbar" to the Georgia Power Company, which will "transmit" some of it to the REA co-ops and public-owned power systems in Georgia.

That scheme was blasted this week by 91 Georgia co-op representatives who met at Atlanta and heard a talk by their attorney, former Georgia Governor Ellis Arnall. He declared that the Clark Hill giveaway "is an unholy situation which needs to be aired before all the people. If we can't settle it any other way, we will take it before the Supreme Court.

"If that court rules the law is not what we think it means, we'll try to change the law through a future Congress, more responsive to the will of the people than the present Congress seems to be." That statement, according to reports, "drew loud applause" from the farm co-op delegates.

Use Determines Value

St. Paul Pioneer Press — It gives one a queer feeling of a world in constant state of flux to be told that the Sahara desert is something more than a vast area of sand, traversed by camels ridden by sheiks. Yet, into our modern world, the Sahara moves upon us as a political and economic potential of a high order. It is no longer to be regarded as a desert, but a land of vast and unforetellable possibilities.

The Romans knew something of that and therefore destroyed Carthage. The Mohammedans knew something of that when they conquered the north of Africa from Cairo to Casablanca. But neither Roman nor Arab ever realized how dependent the world would become upon minerals, how the center of political power would be associated with the possession of minerals, that uranium would become more important to the security of a state than gold.

It used to be that the nation that possessed gold was rich. Then coal and iron came into economic and political significance. For instance, the United States obtains practically all of its uranium from

GANG MILLING

Two-hundred-and-eighty-six slots are milled at once at I-T-E Circuit Breaker's Special Products Div. which makes components for radar, jet engines, and other precision equipment. Specifications called for a tolerance of three thousandths of an inch on one-eighth-inch slots, and permitted no cumulative inaccuracy.

Africa and Canada which have therefore taken on an altogether new meaning for this country, as our life as a free people depends upon our access to this mineral.

The Sahara is full of minerals and metals. . . . Most of the Sahara is controlled by France and may, in the not too distant historic future, become economically more important to France than France itself.

Brazilian Helicopter

Rio De Janeiro (UP) — The Brazilian aviation magazine Aeronauta said today German Designer Carl Focke has perfected plans for a helicopter capable of doing 330 miles an hour in level flight — more than double the present record.

The publication, in an exclusive article, said Focke's design, called the Heliconair 1-B, exceeds in size and cargo capacity any helicopter yet constructed.

It said the design will "revolutionize completely the conventional concepts of aircraft now in use."

"After the conventional helicopter vertical ascent, the wings are extended out from the fuselage similar to those of an airplane which permits attaining the desired velocity," the magazine said.

The article added that the top speed of the projected craft will be more than twice the current world helicopter speed record of 141 miles an hour.

The 63-year-old Focke, whose airframe designs were seized by Hitler for use in the Nazi Luftwaffe's famed Focke-Wulfe fighters, designed the heliconair under auspices of the Brazilian Air Ministry at San Jose dos Campos, Aeronauta said. He has been working at the center since 1951.

The magazine, which is privately published but has official connections, said plans for the new helicopter are almost completed.

Will We Never Learn

Western Producer — Checking the files of a weekly periodical for the year 1928 brought to mind, as such researches usually do, some bits of interesting information which tend to be forgotten. It was an American paper and what was striking about it was not so much any specific item but rather the tone of buoyant optimism which pervaded the whole paper. The U. S. was then riding high on the crest of a wave of prosperity as was Canada. And the knowing ones, magnates of commerce, industry and finance, almost without exception, were assuring all who would listen that never again would there be a depression — the good times were going to last forever. For, they assured us, America had finally discovered the secret of high wages, profitable prices and hence endless prosperity. The leading economist of that day made it official by formally proclaiming that U. S. business had guided industry to a "new high plateau of prosperity."

It was in 1928 that the "great engineer" Herbert Hoover was the Republican candidate for president. During the campaign he promised even better things to come — "a chicken in every pot and two cars in every garage." He was, of course, elected by a thumping majority and the political pundits were speculating whether the Democrats would ever win another national election. That was the way the leaders of the nation in business and politics were confidently talking in 1928. For those who may not remember, 1929 followed 1928 and then the bubble burst, the breadlines began to form and recent millionaires sold apples in the streets. In the midst of the greatest depression on record F. D. Roosevelt was elected to the presidency in 1932 and the Democrats remained in power for 20 years. All of which would indicate that eminence in business, politics or economics does not necessarily endow an individual with the gift of prophecy.

Small — But Mighty

New York — (AP) A great new atomic discovery announced today may one day light your home, run refrigerators and radios with a matchbox-size furnace good for 20 years.

All present atomic power plants — like the new A-sub — run on heat from splitting atoms. The heat makes steam to generate electricity.

The new thing is a little battery smaller than the filter tip of a cigarette. It was announced today by Brig. Gen. David Sarnoff, chairman of the board of the Radio Corp. of America.

Its power comes from an almost invisible amount of radioactive strontium. Strontium is a natural element. Radioactive, or "hot" Strontium-90 is a waste product formed in atomic reactors when Uranium-235 atoms split.

Strontium - 90 constantly shoots out radiation. Each electron coming from the strontium is made to give birth to 200,000 more electrons, multiplying into useful current.

A secret of the battery is the transistor, tiny but potent substitute for vacuum tubes used to amplify current.

Electrons from the strontium race through a wafer of silicon, similar to regular transistors. Each speeding electron knocks loose 200,000 electrons from atoms of silicon, and the electrons flow out as current. The strontium lasts for 20 years.

As yet, this tiny battery produces only enough current — a millionth of a watt — to make a whining sound in a telephone earpiece. But upon Faraday's first production of electricity 120 years ago, no one then could foresee the great power stations of today, Sarnoff noted.

Farm Journal — A British nutritionist, Mr. F. Le Gros Clark, has written: "It used to be said that every new baby born brought a pair of hands into the world, as well as a stomach to be fed. That is still true; but unfortunately it does not bring also a fresh acre of cultivatable soil. . . ."

TOO MANY JOBS

A job of work is a nuisance and an imposition on the individual. It is something to be tolerated only when necessity and welfare of people require it; but it has no virtue in itself. Jobs of work are deplored, not eulogized.

The American public is led to believe that jobs are desirable and necessary. A few years ago, a prominent American politician and businessman set sixty million jobs as a goal to be achieved by this great nation. With a steady increase in the population and a decrease in the average time per employee, that 'goal' has now been passed. But Technocracy takes the stand that a goal of sixty million jobs is a strategic blunder and a violation of the general welfare.

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The topsy-turvy view of jobs held by Americans in general really is not derived from respect for work as such; rather, it results from secondary features connected with the work, primarily the money received for the man-hours spent on the job. This fact is demonstrated by the joy with which employees welcome paid holidays and vacations. These give them a chance to get away from the job yet receive the benefits that it provides. We suspect that, in so far as the individual worker is concerned, he would be glad to get a six-months paid vacation twice a year.

The dependence of most people upon the sale of man-hours, in order to obtain money, is a consequence of the mismanagement of modern society under the regimen of a barbaric system of economics — the Price System. Under the perversions of the Price System, people are induced to plead for work, to feel happy when they get it, and to welcome extra hours of work. They have in effect become businessmen with a business psychology, selling on the market the only commodity they have available — man-hours of work.

Few people in America enjoy their work as such, and few feel the thrill of creative achievement that goes with doing well something that is useful and desirable; for, achievement is not the goal of most work in America. The primary goal is to produce something to sell — something to get rid of, not something with which to enhance one's own living. Too often, the things produced are intentionally below standard or downright shoddy, so that they will need replacement at an early date; and often, things are made or produced merely to be dumped. There can be no joy of workmanship in employment at such labor.

Work, As Such, Is Degrading

In primitive savage societies, work was a matter of survival. Gathering food, building shelters, and moving from one hunting ground to another occupied nearly all of one's time. The immediate objectives of living were the social goals; work was secondary and incidental to these goals and was indulged only because no other way of survival was known. When the food supply was plentiful, the people lived better with less effort; in times of severe scarcity, survival became uncertain and the people had to work harder for what they obtained. In savage societies, there were no property rights as we know them. Good fortune and bad were shared by all alike.

In the barbarian period of human culture, which followed the period of savagery and which extends into the present, work became an institution and human toil became a virtue in its own right. With the advent of agriculture and stock-raising and the establishment of more permanent abodes, the fundamental requirements of life could be obtained in greater plenty with less effort and with greater certainty. However, these advantages were offset in large part by an increase in population; so that, when something 'went wrong' — such as a drouth, a flood, a locust plague, or war — the effects were disastrous. But, on the whole, much more could be obtained in the way of human necessities and comforts with less effort. However, the lot of the typical individual among the majority did not improve as one would expect; rather, if anything, it got worse. For, make-work projects were invented to exploit his energy.

In this barbarian period, huge outlays of man-hours have been expended in doing things that are not essential to human living and welfare. These expenditures of man-hours have taken several directions, nearly all of which tend to degrade the individual who furnishes the man-hours and to detract from his welfare and comfort.

Much effort and materials have been expended on the construction and maintenance of political edifices — castles, palaces, fortresses, and such. And much additional effort and materials have been expended on glorifying and servicing the political hierarchy.

As an adjunct to politics, warfare has consumed man-hours and the products of man-hours in prodigious quantities, without directly enhancing the living standards of the people, usually the reverse. Organized warfare is a characteristic of barbarism and stems primarily from disputes over property rights and from greed for property, human toilers,

and souls. Warfare throughout this period of human culture has wasted mineral resources, human energy, and human life lavishly. The stimulus which it is alleged that war gives to invention and industry has not been worth the price in suffering and despoilation it has cost; and more stimulus could easily have been generated in other ways which are much nicer.

Another lavish expenditure of man-hours revolved around religious edifices, furnishings, and trappings, to say nothing of the services directly connected with religious ceremonies. The pyramids of Egypt and Mexico and the temples of Europe, southern Asia, and Latin America, for instance, have been built with a cruel expenditure of human lives and effort as well as a cruel assessment on the living standards of the people.

Mercantile commerce, however, has been the largest and cruelest drain on human muscles and comfort. The agricultural and industrial projects of the world, which were instituted primarily for commercial purposes, have been festering blemishes on the civilizations of all barbaric countries — the coal mines and factories of Britain; the plantations of the tropics; the metal mines of Africa, South America, and the Orient; the commercial farms and the steel and textile centers of North America — to mention only a few examples.

The psychology of barbarian societies is such that, before one can have anything, one must sell something. Most people are reduced to the necessity of selling some part of themselves — usually a portion of their time and effort. Human-toil employment has been of such a nature that the daily period of employment just about used up the available energy of the worker, so that he needed the rest of his time (for which he did not get paid) to recover from it. (Soldiers, members of ecclesiastical orders, slaves, and certain others are bartered more completely — whether voluntarily or involuntarily.)

A few fortunately-placed or astute individuals can get by without selling themselves except, perhaps, incidentally. The merchants trade in goods and, thereby, are not limited in the volume of their sales as is the man who sells only his man-hours. Others sell things they do not own; they are called brokers. Some sell promises; these include politicians, salvation artists, and publicity men. Others sell information and are known as spies, informers, and consultants. Some sell influence, real or pretended, and are called lobbyists, diplomats, ecclesiastics, endorsers, etc. Some sell guesses about the future — tipsters, forecasters, prophets.

Only a few people get by without selling anything, such as bums, charity cases, and people who have acquired enough wealth to support them. Those who merely hold plush positions, such as in the United States Senate or on the boards of large corporations, could hardly be considered as selling anything other than the use of their names and signatures. But the great majority under this barbaric Price System must rely on selling themselves — their bodies, their time, their skills, their talents, their energy, or their obedience.

All people who actively sell something or hold paid positions are classified as 'employed.' They have jobs. Under the Price System, it is obvious that the criterion for a job is not whether it is useful to the society but if it provides something to sell. The concept of a person enjoying life and comfort merely as a function of his or her membership in an organized society is alien to the culture of barbarism.

'Work or Starve'

Under barbarism, life and survival are hazardous for the individual. One must prove that he deserves to live and receive sustenance or he is subject to extermination. Often, he is subject to extermination anyway, for example, in time of war or, in peacetime, when the cost of providing safety is deemed greater than the individual is worth. The more people who have jobs (or positions) under the Price System, the happier are the administrators of the System. For, if people do not have jobs, or occupy certain recognized positions of wealth or dependency, they don't deserve to live; and the administrators have to find some means of exterminating or reclassifying them. People generally object to being exterminated and if faced with it are apt to cause trouble. This tendency bothers the administrators; for, they are usually the number one targets of that trouble. Only a few people will retire to some nook and starve to death quietly. (Exceptions may be noted in some heavily over-populated areas, particularly of Asia, where chronic starvation has so debilitated large numbers that they die off without much fuss. The most trouble they cause the administrators is their dying in scattered locations, which makes it inconvenient to gather up the bodies.)

People who are without jobs, or who are not considered deserving of support otherwise, hence are without legitimate means of livelihood, sometimes resort to violations against the sanctity of property and persons in a desperate effort to gain a living. That poses a serious problem to the administrators of the Price System. In modern 'civilized' countries, the authorities can't just go out and round up the 'unemployed' and shoot them. The legal codes have become so snarled in red tape and double-talk that action against 'undesirables' can be taken only by indirection. The 'undeserving' must first commit some act that is defined as a crime (including vagrancy), then they can be rounded up. But, even then, you can't ordinarily shoot them outright; you have to detain them until they become 'rehabilitated,' escape, or die of 'natural causes.' This process is highly nuisancesome and deucedly expensive; so, except for a few token 'examples,' it is simpler and cheaper just to bribe them to be quiet (or issue them a 'license' to misbehave at a price). If one is receiving bribery in the form of relief, unemployment insurance, or retirement pension, he is technically 'deserving' of life and subsistance, just as if he were working, and thereby he is reprieved from extermination.

The doctrine of extermination of the undeserving, however, is highly popular among many social administrators. Even very recently in America, official and unofficial spokesmen have on occasion boldly suggested the execution of such miscreants as those who refuse to work, those who refuse to vote, or those who vote for the opposition party. In most places where one religion is dominant, the idea of exterminating members of 'heretical' religions is viewed with much favor. In some of the more primitive barbarian tribes, the idea of exterminating the incapacitated old folks was put into practice. In modern barbarian societies, the idea remains but the technique is more covert: the indigent old folks are left to die from helplessness and neglect.

The primary virtues for the 'common man' under barbarism are hard work, self-repression, thrift, and obedience. (The Upper Class is permitted and expected openly to violate all of these virtues. Leisure, indulgence, extravagance, and willfulness are its recognized characteristics.)

The person (as contrasted with the Personage) is expected to be employed at something that pays off in money or keep. Even useless make-work employment is rated higher than idleness; in fact, it is rated higher than working at something from pure interest in the endeavor, without payment. If a person isn't working for pay, or isn't in a recognized state of dependency on someone who is working (or has worked) for pay, that person is viewed with suspicion by the whole society. As a matter of self-defense against the nasty little pressures that will be brought to bear upon him, the individual must at least put on the appearance of 'making a living' — even though he may not need to do so for actual survival. Further, the person is expected to restrain his desires and appetites in order to save a portion of his income, so that, in case of sickness, old age, or economic misfortune, he will not be a burden on the rest of society. And, of course, he is expected to be obedient to, and respect the values of, those who pay him off, directly and indirectly, as well as to those who are looking out for his 'security' in the present and hereafter.

Thus, under barbarism, the social emphasis is upon jobs as contrasted with freedom from work. A resultant of this perversion of emphasis, particularly in this power age, is the existence of far more jobs and far more people working than an efficient operation of the society would require. The society is under pressure to furnish jobs to the populace and the individuals are under pressure to seek jobs.

Technology Interferes With Jobs

Economically, the affairs of Price System societies have been permitted, even encouraged, to proceed on the basis of a laissez faire type of anarchism. Large-scale organization and planning of the economy has been frowned upon; for, it tends to result in greater efficiency with respect to the use of man-hours. The maximum number of man-hours are consumed in that economy which is made up of an uncoordinated conglomeration of small-scale enterprises — small farms, small shops, small businesses. These small enterprises are eulogized by all the upholders of barbarian values, particularly by the supporters of fascism.

First in North America, and more recently throughout the world, large-scale organization and coordinated planning were forced upon society by the advent of power-driven technology. The size and cost of technological operations soon got out of hand in so far as the individual and family were concerned. Corporations and syndicates had to be organized to handle them; and, once they started to grow in magnitude, there was no simple way of curtailing them. In spite of social resentment and resistance, organization and planning grew to giant size. Technological organization has now reached the stage where a single enterprise requires a capitalization of a billion dollars or more. The flowlines of commerce have become jammed with goods as a consequence of the developing efficiency, while employees by the millions are lopped from the payrolls as the number of man-hours per unit of production plunges downward.

The government came to the rescue of corporate enterprise when its output exceeded the capacity of the market-place to absorb it; and soon corporate enterprise took over control of the government. Today, the people of the United States (and Canada) are in the clutches and at the mercy of a government of, by, and for corporate enterprise. The economies of the United States and Canada, consequently, are regulated and supported by their respective governments in the interest of the large corporations, and the fat expense bill is charged to the consumers.

The big problem facing these governments is that of maintaining the people at jobs in sufficient numbers to save the Price System and forestall social unrest. In spite of gigantic make-work programs, such as stock-piling, armament buildup, and war, the situation is becoming acutely embarrassing to the administrators. The only hopeful signs in sight are the ballyhoo posters for the promised forthcoming big attraction — World War III.

Strangely enough, much of the deterrent resistance to World War III, at this time, is coming from corporate enterprise itself, while the war-clamor comes from those stooges who are one or more steps removed from the actual operations of corporate enterprise. This strange state of affairs is accountable to the busy-ness of corporate enterprise in getting itself reorganized, consolidated, and freed from employees as it approaches the final stage in its progression toward monism (a condition which it does not understand or know what to do with when it is reached).

Anyway, the process of the large corporations gobbling up the small corporations, then the giants gobbling up each other, is progressing at such a feverish pace that it occupies the major attention, just now, of the corporate enterprisers. So it is left to the militarists, the politicians, and the ecclesiastics to do the actual promotion work for The Big War.

What will happen if America does not get The Big War is something too dreadful for the leaders of the status quo to think about. One of America's leading journalistic spokesmen exhibited shock and dismay recently over the discovery that most Europeans, as well as most Americans, do not welcome destruction by hydrogen bombs in preference to peaceful co-existence with 'communism.' Cardinal Spellman, speaking in France recently, beseeched the people of the 'Free World 'to accept the destruction of atomic war in preference to communism. This indicates how bankrupt is the strategic policy of the West.

It takes only a casual survey of the employment situation in America to reveal that half the jobs, at least, could be abolished almost immediately, and the actual physical operations of the country would be improved rather than weakened. The biggest field for improvement is that of retail distribution and handling of goods and services. In this field, there are approximately thirty times more people employed than a highly efficient setup would require.

Shame on 60 Million Jobs

Technocracy contends that any social mechanism of continental scope that employs upwards of sixty million people at jobs of work is obsolete and in serious need of redesigning. From the standpoint of social mechanics, the administrators of North America should be ashamed of the dilapidated, 'Rube Goldberg' apparatus they are trying to keep in operation.

In the better-organized industries, automation is entering to displace nearly all of the workers. Other industries could readily be automated and, thereby, be enabled to dispense with most of their employees. Building and construction still uses techniques which are obsolescent and consume huge numbers of man-hours. A large percentage of these man-hours could be lopped off by the introduction of such half-way measures as standardization and prefabrication of component units. Even the basic industries — agriculture, mining, fishing, lumbering — are far from being completely modernized. The modernization of only a part of these enterprises would take care of the entire productive needs at the same time it reduced employment in that part; and it would abolish altogether the plants and employees in the remaining part. For example, it is not necessary to modernize all the agriculture of North America. If some fifty percent of it were modernized, the other fifty percent would not be needed and the land could be made available for forestry or other uses.

Technocracy takes the view that sixty million jobs in the United States is a social disgrace, as well as a wastage of human life and effort. Technologically, it is a sign of gross inefficiency. The work of the Continent could be done much better and at less social cost with only a fraction of the present expenditure of man-hours. Technocrats are opposed to the invention of work merely to keep human beings busy, or to serve as an excuse for providing them with the requirements of life. Machines and extraneous energy can do most work that human beings are doing, faster and better, even many jobs that once were considered to be strictly human. One kilowatt of electricity, used continuously over a 24-hour period, can do as much physical work as 78 men working at heavy labor on eight-hour shifts; and the kilowatt can do it every day of the week and every week of the year, at an annual cost of about $25, computed at industrial rates.

Technocracy recognizes that there is much construction work that needs to be done to organize the Continent for efficient balanced-load operation; and, for a time, this is going to demand more man-hours than will be needed to operate it after balanced load has been attained. But that is a unique situation which will not have to be repeated. Even so, it is probable that, in spite of much more work being done during the transition, the man-hours employed will be a steadily diminishing quantity.

There is no sense in, and no need for, human beings working for pay. In the first place, there is not enough work available to keep everyone at a paying job. Further, the amount of money paid for the man-hours is insufficient to create the magnitude of consumer demand required to keep the Price System in operation. And, finally, it tends to give people a perverted concept of the purpose of human effort. The major psychological problem involved in the transition is that of conditioning people to participate in the functional operations of the Continent on the basis of social need rather than on the basis of private incentive. Yet it is well known that working at a job which is recognized to be necessary or desirable for the general welfare is more satisfying than working merely to get money. When the amount of human time and effort is reduced to a non-burdensome quantity and all capable persons (including personages, if any) are placed on the same man-hour basis, the operation of a Continent can be a pleasure rather than a chore.

What Technocracy Predicts

Suppose the present standard work-day of eight hours were reduced to half and the number of work-days in the year were reduced to less than half the total number of days, with one's period of functioning beginning at age 25 and with everyone being retired at 45, would you consider that to be a suitable goal for this Continent? Consider also that one's income, guaranteed for life, would be equivalent to that of a corporation executive today. That is the standard of living predicted by Technocracy for the New America; for, it is the standard of living which has been made possible for all citizens of North America by the application of science and technology to human needs and wants. But this standard of living cannot be obtained under any form of the Price System. Only the administration of a Technate can make it a reality.

It may be that, for the whole area of the Technate, on the basis of the man-hour specifications mentioned above, sixty million citizens of North America will have functional designations in the Technate. But you can hardly regard such functional assignments as jobs. Jobs, considered as periods of employment for a price, will go out with the Price System. Along with their disappearance will go the concept that people should work for a living.

Every resident of the North American Continent can take for granted the right to life and maintenance. A minimum amount of one's time and effort will be required by the social order, incidental to the guarantee of abundance and security to all. This will be demanded as a social necessity, not as a social desire.

Why should Americans clamor for work under the Price System when the Continent has so much more to offer them? Why not demand the most that can be provided with the least effort? You are invited to present this demand in the only effective way it can be presented: Join Technocracy and become part of the Continental movement for Abundance, Security, and Freedom from Toil.

—Wilton Ivie, CHQ

What Lies Ahead?

(Continued from page 10)

ment and to see to it that this cream is collected by the deserving business enterprises in our national domain. It will attempt and may succeed in looting the mineral resources of Federal lands, Federal reserves, and national parks. It has already gone far in this direction in the matter of tidelands oil. It will further seek to have private power companies develop the water power resources that come under Federal control. They will seek if they can to separate any mineral resources that may still be in Federal ownership from government control and to pass it over to profitable exploitation by private enterprise. In simple terms, Big Business is in the driver's seat, pushing its foot on the accelerator. It is riding down the economic highway in a solid gold Cadillac hell-bent for the next election. There have been high crimes and misdemeanors and political largesse that have accompanied every political administration. Now the intuitive fears of the private enterprisers are correct, for they realize that this is their last chance at the big loot, and they are going to 'do it up brown.'

Yesterday belonged to the Democrats, today belongs to the Republicans, but tomorrow will belong to the Technocrats!

More Automation

Los Angeles Herald & Express, June 24 — Pushbutton factories in which workmen merely watch over entirely automatic machines run by tiny electronic brains were envisioned today as not far in the future by scientists of Westinghouse Electric Corp.

Dr. Stephen J. Angelo, speaking at the summer meeting of the American Institute of Electrical Engineers in the Biltmore, sketched progress toward the pushbutton factory from the time of the Industrial Revolution 300 years ago.

"At that time," he said, "man began substituting mechanical power for animal muscle power. By World War II the art of using mechanical power had reached the point where practically all major work was being done by machines which had taken over the job of human muscles.

"Today we are on the verge of developing complete nervous systems for those mechanical muscles — nervous systems which will not only tell machines and entire production lines what to do, but how to do it, when to do it and how often to do it."

"Electronics is now a billion dollar industry, ever increasing in scope and utility," Lee DeForest, "Father of radio," said in addressing the convention.

The noted inventor and scientist, at a luncheon of Eta Kappa Nu, electrical engineering honor society, recalled the day 48 years ago when he had a lamp manufacturer construct the first two electronic vacuum tubes.

"In 1952," he continued, "Sylvania Company handed me its one billionth electron tube.

"Electrons now sound ocean depths and locate schools of fish. In diathermy and the encephalograph it is a hospital indispensable. Radar and modern warfare are impossible without electronic aides and the electrons completely control aviation.

"The magic of television and radio, now in every American home, alone adds up to a billion dollar a year industry."

Who Has It?

Daily News, Los Angeles — Everybody is talking about surpluses — too much beefsteak, too many spuds, too much butter and bread and cotton. This is the only country in the world with too much food. We are the only people in the world who can't drive home after work because there are too many cars. We eat so much that diet experts make a good living preaching what not to eat, and every window is full of shirts and shoes which anybody can buy with four hours' labor.

Delusion of Ownership

(Continued from page 8)

wanted) under the Price System. During the first year of enactment, social security took from those workers covered by the act some $500 million at a time when their purchasing power was at a low level.

Since 1937 social security has grown into a billion dollar enterprise. And the elite of the government representatives are now taking measures to broaden social security to include more millions of employed persons with a tax increase to employee and to employer. If this program is approved, and the indications seem favorable, there will be a further decrease in the power of acquisition on the part of millions of more Americans. While much ballyhoo has been given to the payment increases since social security started, the devaluation of the dollar has more than wiped out these increases. The payments under social security, or from a combination of pension plans (depending on whether the person eligible to receive same lives or stays with the firm long enough to draw it), are hardly sufficient to provide a decent standard of living. It falls short, much short, of this great American way of life we hear so much about but so seldom see.

But the real rub comes when the payments made into the social security fund are followed to their conclusion. Most Americans think that the government has a reserve on hand equal to the amount of income paid into the social security after outgo, but this is not the case. The federal government does not have on hand the money paid into the fund (the government is supposed to have about $20 billion in the social security fund). All the treasury of the United States does is issue securities to the social security fund when it receives the income from social security payments. The government then proceeds to use this income to help defray the expenses of the government. Social security not only takes directly from millions of Americans a percentage of their purchasing power, but forces every taxpayer to pay for something which has already been paid for once. It can be readily seen why the politicians want to broaden what could be rightly termed as social *insecurity*.

Under the Price System the ownership of things has become a burden upon the American people. In acquiring things, the people are being required to contribute a greater part of their lives playing the rules of a game which does not contribute to their well-being or to the general welfare of the Continent. The American people are forced to take on all the liabilities which go with the perpetuation of an antiquated, pre-technological concept as a mode of social operation. And they are allowed to indulge in the consumption of goods and services only to the extent which is necessary to maintain the present system of high commodity valuations.

It seldom occurs to most Americans that the ownership or the possession of things is incidental to the real objective of the present mode of social operation, but that concept or frame of mind is necessary in the perpetuation of the Price System. Most of the people of this nation do not realize that their belief in the concept of ownership, their ambition to spend the greater part of their lives in this pursuit, makes it possible for those few in the advantageous positions to use the American people as mere tools to perpetuate the rackets and to maintain a scarcity system. But it is almost impossible for Americans to conceive of the concept of ownership as being a delusion or a fraud perpetrated upon them, let alone conceive of an entirely new concept of operating the social complex without ownership.

If the American people were allowed to consume within their physical limitations the abundance our technology produces, there would be no need for the concept of ownership with its promotion of paper manipulation which adds nothing to the operating structure of the economy. While ownership may have some validity in an era of scarcity, it has no place in this technological age of mass production.

It must be evident to most of us that the operation of the social mechanism of this Continent depends solely upon its physical resources, machines, and technical skill, not upon the make believe of ownership with its inflated values, debt claims, and paper wealth. Our social complex can operate without ownership, whether this ownership is individualistic or collective, but it cannot function without the resources and technology necessary for a high-energy civilization.

Sufficient Resources and Know-how

The fact that this Continent has sufficient natural resources, the plant and equipment, the know-how, and the technical personnel, makes it possible to produce and to distribute an abundance to each and every North American from birth to death. In an economy of abundance, each individual will be entitled to consume all the things he needs and wants when he needs and wants these things. Under those conditions, what would be the sense of ownership? It is not the ownership of things that is important, but the conversion of our energy resources in the most efficient manner possible to operate the social complex for the welfare of all Americans.

This nation does not need the numerous schemes or rackets devised out of the concept of ownership to perpetuate insecurity for the ninety-five percent at the lower stratum of society and security for the five percent at the top. It is possible for all of us to have abundance, not tomorrow or in the unforeseeable future, but now with a minimum of human effort. Without the paper manipulation of ownership it will be possible to eliminate all unnecessary activities, and with technological automation it will be possible to reduce the total man-hours of work to at least 16 hours per week for every able-bodied Ameri-

(Continued on page 26)

Do-Gooder's Racket

New York, Wall Street Journal, Dec. 16, 1953— A professional fund raiser testified yesterday a campaign he conducted raised $630,000 for a non-existent hospital.

The witness, Arthur H. Levien, testifying before a New York State legislative committee attempting to draft controls to curb fund-raising abuses, said the hospital — the National Cancer Hospital of America — a Detroit operation — "was not a going concern in the sense that it had no buildings." He added, however, that the "hospital" had acquired some land adjacent to a hospital in Detroit.

Nathan Frankel, investigator for the committee, testified that cost of raising the $630,000 amounted to $435,000 or 69 cents of each dollar received. Mr. Frankel also brought out that the organization has been enjoined from soliciting funds in New York State.

The committee also heard testimony that the names of U. S. Sens. Irving Ives and Herbert Lehman, both of New York, New York Mayor Vincent Impelliteri and Mayor-Elect Robert F. Wagner were used by the Kings County (Brooklyn) Council of the Marine Corps in connection with its fund-raising activities. On Monday, it was testified the organization had turned over 85% of its collections to a professional promoter.

George H. Kerner, associate counsel of the committee, read a letter from Sen. Ives in which he said he had not "checked sufficiently" before lending his name to the Marine Corps league. He said he had supposed the organization was above reproach.

Political Run-Around

Louisville Courier Journal, '53 — It is disturbing to hear the President lend his prestige to the myth that "the taxpayers of New Hampshire are paying for Tennessee's cheap power." The government has appropriated approximately $1,600,000,000 to the Tennessee Valley Authority over the past 20 years for four basic programs: power production and distribution, improvement of navigation, flood control and resource development (this last program was excluded from this year's budget by the House.) Appropriations for navigation, flood control and resource-development are made as direct grants, as they are to all other areas. All appropriations charged to the production of power, however, are repayable to the government.

Under the T.V.A. acts of 1933 and 1938, every cent spent by T.V.A. for power facilities must be repaid within 40 years of the loan date. In addition, a fixed percentage of all revenues from power sales, except those made to federal agencies (such as the Atomic Energy Commission and Air Force) must revert to the Treasury. So far, T.V.A. is ahead of its repayable schedules, and last year returned funds amounting to repayment of loans with 4.7 percent interest. Furthermore, when T.V.A. has repaid the government for all power facilities — and with interest — the government will still own these facilities, whose revenues the government may regulate or use as it sees fit.

Therefore, taxpayers in New Hampshire and Massachusetts are not paying for the power used in the Tennessee Valley. The customers are paying for it. The people of Ohio and Utah actually profit from government loans to T.V.A. for power, just as stockholders in a bank profit from loans repaid with interest. The government and the taxpayers receive other dollar benefits from T.V.A. power, too. For example, the Atomic Energy Commission originally planned to divide its power purchases for the Paducah atomic-energy plant between the T.V.A. and a privately-owned plant at nearby Joppa, Illinois. But when the power needs of the atomic-energy plant were increased, the A.E.C. decided to buy all of the additional power from the T.V.A. Shawnee plant, since by doing so it could save the government $2,000,000 a year in power costs.

And the Paducah plant is but one of the many federal installations within the valley that annually save millions through use of T.V.A. power. Comparable savings are effected at Oak Ridge, Tullahoma and the numerous defense plants, governmental and privately-owned.

In justice to the people of the seven-state T.V.A. region, the President should substantiate or withdraw his charge that T.V.A. will not need the generating capacity sought in T.V.A.'s budget requests. The charge that T.V.A. engineers consistently and intentionally over-estimate their future power needs is a favorite of the power lobby, and was echoed during recent House hearings by Representatives Cotton, Phillips, Jonas and Thomas. The facts do not support them.

Power for the Future

Estimating future power demand is a tricky business. This year the United States used more electrical power than Westinghouse, in 1947, estimated that the nation would need by 1957. When the original T.V.A. dams were being discussed in Congress, a distinguished group of private-utility experts produced charts, graphs and volumes of figures to prove that the power would never find customers. Since then the power output of T.V.A. has increased 20-fold, and yet the power supply consistently lags behind the fast-growing demand.

By comparison, T.V.A. engineers have done well in their estimates. Figures compiled by the Defense Electric Production Administration show that during the past six years T.V.A. engineers have underestimated their future needs twice, overestimated them three times and hit the target once. At no time have they been seriously wrong.

At any rate, private utility officials directly interested in T.V.A.'s power situation do not seem to think T.V.A. engineers have overestimated their future needs. *T.V.A. had hoped to begin this year*

generating units which would produce 810,000 *kilowatts of additional power by the fall of* 1956. *The House, by vetoing the Fulton steam plant, cut* 450,000 *kilowatts from this schedule, thus creating an almost-certain shortage of power within three years. Mississippi Light and Power Company Vice-President R. Baxter Wilson has offered to supply power to T.V.A. to offset this shortage, "under proper contract," and has promised to make as much as* 200,000 *kilowatts available within a year. However, when asked if he thought* 200,000 *or even* 400,000 *kilowatts would meet T.V.A.'s needs, Mr. Wilson said that, in his opinion, such amounts "won't be a drop in the bucket to what they're going to need."*

Neither is it easy to justify the President's remark that if programs similar to T.V.A. are developed elsewhere, he will insist that the people be given a greater voice in control. The fact is that the people of the Tennessee Valley take an active part in the operation of T.V.A. The policy, of course, is controlled by Congress, just as are policies of local municipal power boards that buy power from T.V.A.

But as the Chattanooga Times pointed out in its recent comment on the President's statement: The people of the valley have lived with T.V.A. for 20 years now, and if there is any serious complaint over a lack of control of T.V.A. affairs we haven't heard of it. The truth is, of course, that T.V.A. has worked with and for the people of the valley in the common objective of a sound, all-around development of the region's resources.

The President's attitude, we fear, reflects too closely the tendency of Congress to condemn T.V.A. without proper facts.

Chemical Progress

University of California, Berkeley — The production and chemical identification of element 100 has been reported by a group of nuclear chemists doing research for the Atomic Energy Commission in the University of California Radiation Laboratory.

The element was produced by a unique method of "fattening" up plutonium atoms with neutrons, elementary nuclear particles. In a two-stage process, a total of 15 neutrons were added to plutonium, finally giving the scientists atoms of element 100 with a mass of 254.

The experiments were done by the Berkeley scientists early in January with the AEC's Materials Testing Reactor at Arco, Idaho. The Arco reactor is a prolific source of neutrons.

The scientists said that due to the existence of unpublished information on element 100 the question of its first preparation should not be prejudged on the basis of the present announcement.

The new element has no use in making atomic weapons or in the production of atomic power. It has a half-life of about 3 hours. It decays by the emission of alpha particles of roughly 7.2 million electron volts. It is chemically analogous to erbium, element 68, a rare earth.

Butter and More Butter

Ottawa, May 6, (CP) — The government is offering its 33,000,000 pound butter stockpile to the trade at 55½ cents a pound . . . 2½ cents below what it paid for it.

This reduction — together with handling charges — may mean a loss to the federal treasury of more than $1,000,000.

Agriculture Minister Gardiner announced Wednesday the sharply reduced selling price . . . compared to about 61 cents a pound last year . . . as a move to dispose of the government's 1953 surplus.

Meanwhile, the government will continue to buy 1954 butter from producers at the support price of 58 cents a pound. And if pastures are good, the government may be buying more butter this year than it did a year ago.

Federal experts anticipated that milk production this year will be higher and they believe the release of 1953 stocks at the cut price will reduce the market for 1954 butter.

Mr. Gardiner estimated that the government "may buy a somewhat larger proportion of the total current make butter because 1953 make butter will be moving into consumption."

This is the first time since 1950 that the government has cut prices below cost. At that time it unloaded about 20,000,000 pounds. . . .

Even In the U.S.A.

Federation News — Richard Gray, president of the Building and Construction Trades Department of the AFL, told members of the Washington Building Congress that the United States has 10,265,000 slum dwellings, almost a third of the 36,165,000 total dwellings in the country.

"We must make our new program work," Gray said, "or we will soon become a nation of slums."

Gray said the U. S. has 4,372,000 dilapidated dwellings deficient in plumbing, which are owner-occupied; 5,893,000 renter-occupied dilapidated dwellings. In both cases, 51 percent earned less than $2000 a year.

Bundles for Britain

London (Reuters) — Britain will get surplus American meat as a gift under a scheme now being negotiated it was disclosed today.

A treasury spokesman said: "There will be an announcement shortly, probably simultaneously in Washington and London."

The deal will be ostensibly a purchase under the United States Mutual Security Act but, the spokesman said, "it is purely a gift." The money paid for the meat is returnable to the British government for defense spending.

Britain has already bought $20,000,000 worth of American tobacco under the same scheme.

We Must Be Ethical

The Wall Street Journal — "Madam, I'm from the bank. We'd like to help you open an account, and if you're in need of funds we'd be happy to have you consider our many credit plans." This kind of door-to-door sales spiel will soon be made to Wichita housewives. The canvassers will be Union National Bank salesmen touring the city's neighborhoods to promote new business.

Union National, third largest of the city's eight banks, is launching the doorbell-pushing drive as part of the work of its newly created sales department. R. H. Kilgore, Union National president, explains: "As a bank we're facing the fact we have credit and services to sell. We either continue to let our goods stand on the shelves and wait for people to come in, or go out and try to bring them in. The first is called merchandising, the other, salesmanship. We think it's time to sell."

In advance of the home calls a direct mail piece is planned. The first letter is entitled, "Who Can Borrow Money."

While Mr. Kilgore is taking pains to see that nothing in this message or the sales program generally reflects adversely on the ethical standards, prestige or soundness of banking practice, he is interested in putting across this point: "You don't have to beg a bank for a loan." He adds: "When you have a sales department, people are likely to think you have something to sell and are less reluctant to come in and buy it."

Mechanization

The Albertan, May 27 — Although there's a temporary glut of grain in Canada, it must be assumed that farmers are doing a national and international service by maintaining their production at such high levels. The weather must be given much of the credit for the good yields, but at the same time farmers are maintaining a high total acreage and are managing their acres very well. Yet the farm population is lower than ever before.

The Brooks Bulletin assembles a few statistics. From 1941 to 1946 about 24,000 workers left prairie farms. Between 1941 and 1951 the number of farms on the prairies declined by 48,000. The average size increased to 550 acres in Saskatchewan, 535 in Alberta. The horse population in Canada declined from 3,361,000 in 1926 to 1,096,000 in 1953, and most of those were not on the prairies. Indeed, countless prairie farms have no horses at all.

How, in the face of all this, was it possible to maintain farm activity? By more and more mechanization. In 1931 the farm machinery investment on the prairies was $356,000,000. Twenty years later it was more than three times that amount.

The Bulletin concludes:

Farm mechanization has cut the costs of operation. It has entailed a huge investment in machinery, decreased the farm population and brought about an enlargement of farms.

Medical Expenses

Federal News, 1954 — Eight million families, or 16 percent of all in the nation, had medical debts as of July, 1953 totaling $1.1 billion, Health Information Foundation reported in the first national consumer survey of medical costs in 20 years.

The survey showed that 13 percent of the total physician costs for the American people are covered by insurance, and that within these costs, 38 percent of surgical fees to physicians were paid by insurance benefits. The average cost per family for medical and dental service during the year covered for all 50 million families with and without insurance in the U. S., was $205. Hardships suffered by families with heavy medical expenses were underscored in survey findings that showed:

1. Six million families last year had medical expenses totaling 10 to 19 percent of their income.

2. Two and one-half million families had medical expenses totaling 20 to 49 percent of their income.

3. One million families had medical expenses totaling 50 to 100 percent or more of their income, with 500,000 within the latter category.

One man can lower a completed line of butyrate-plastic pipe into a trench after it has been joined with sleeve-type couplings and a solvent cement. Oil producers are using it to carry "sour" crude oil and salt water. In addition to resisting corrosion, the Tenite pipe remains relatively free of paraffin accumulations.

Why — The Fear?

Milwaukee Journal, New York, New York — Christian Action, an organization of Protestant church men and women, Friday made public a statement supporting public officials and church leaders who oppose Senator McCarthy.

The statement linked congressional investigations of communism with "a totalitarian trend" which it termed "a greater threat to our institutions than domestic communism."

The statement said:

"The whole trend, of which Senator McCarthy is partly cause and partly symptom, has had the following destructive effects:

"1. It has undermined the safeguards by which, in our tradition, citizens are protected against arbitrary injury by those in power.

"2. It has impaired the morale of vital departments of government.

"3. It has created an atmosphere in which many people are fearful of dissenting from the opinions of those in position to bring great pressure on the community.

"4. It has drained our energies as a people and shifted the focus of political debate from the domestic and foreign problems which should command our attention. . . ."

Effects of Air Pollution

Louisville, Ky., (AP) — Suspicion that air pollution is related to lung cancer is strong enough to warrant further study, a specialist in the field said today.

Dr. William P. Shepard of New York said shortly after he was elected chairman of the American Medical Association's Council on Industrial Health that evidence has turned up in Los Angeles, New Orleans and other cities that heavy air pollution may help cause lung cancer.

Sacramento (AP) — The Crime rate in California is increasing at twice the rate that the population is growing, a Senate Finance Subcommittee was told today. Assistant Attorney Gen. Wallace Howland said the State is gaining population at 5 percent a year but crime is growing at about 10 percent.

THIS MONTH'S COVER

Now finished, the giant Bevatron pictured is buckling down to work at the university of California's Radiation Laboratory to spin atomic particles through a 300,000-mile journey that gives them an energy of more than five billion electron volts. The purpose: to learn more about such nuclear particles as protons and mesons and how to put them to work. In the photograph the linear accelerator is the cylindrical tank in center, the giant magnet is at the left, the ion source and Cockcroft-Walton machine at right.

Delusion of Ownership

(Continued from page 22)

can. The concept that we must have sweat, tears, and blood now so that we might have security at some future date is as outmoded as the horse and buggy.

Technocracy presents a new concept which is as modern in its design as the technological age we live in today. Instead of ownership with its perpetuation of burdens upon a greater number of the American people, in its place will be a method of social operation where the production and the distribution of goods and services are abundantly distributed to the people without price, interest, or debt. Only that common denominator of all commodities and services, energy, will be used in a Technate. By using energy as the basis for the regulation of all Continental production and consumption, it will be a simple matter to measure the amount of energy conversion necessary to operate the entire social mechanism and to account for the consumption of goods and services by the American people at all times. All operating, replacement, maintenance, and expansion costs (in energy) of the Continental complex, all costs of communal services and provisions (such as local transportation, public health, and minimum housing space for each individual) are deducted before net energy is arrived at. With the use of the Energy Certificate each American will receive an equal, but not identical, amount of the products of the total net consumed energy.

As one can understand, there will not be any ownership in a Technate in its present legal sense. No individual or group of individuals can own the means of production and consumption. But through the Energy Certificate each individual will have the means of maximum social expression and decision, probably beyond the consuming power of the individual. What more could any American ask for?

We can no longer delude ourselves with the concept of ownership, it is time to face physical reality. Learn about Technocracy now!

—Clyde Wilson, 11833-2

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TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group or association either in America or elsewhere. The basic unit of Technocracy is the chartered Section consisting of a minimum of 50 members and running up to several hundred. It is not a commercial organization or a political party; it has no financial subsidy or endowments and has no debts. Technocracy is supported entirely by the dues and donations of its own members. The widespread membership activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are $6.00 which are paid by the member to his local Section. Members wear the chromium and vermillion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-19 when Howard Scott formed a group of scientists, engineers, and economists that became known in 1920 as the Technical Alliance — a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present Continent-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every State and in every province in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces. Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocracy unit.

WHO?

Technocracy was built in America by Americans. It is composed of American citizens of all walks of life. Technocracy's membership is a composite of all the occupations, economic levels, races and religions which make up this Continent. Membership is open only to American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective office or active office in any political party.) Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher, or housewife—so long as you are a patriotic American—you are welcome in Technocracy.

The TECHNOCRAT

Offering to the American public a medium by which it can learn the facts regarding the transition period in which we are moving toward a New America of technological abundance.

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DECREE OF DESTINY

America faces simultaneously both opportunity and disaster. Destiny knocks at the door of this Continent — the doorway to a new Continental social order. We must answer this opportunity of destiny — or face the disaster of the anarchy of our moronic national mediocrity.

America faces the greatest social change in the recorded history of mankind — the downfall of the Price System, the end of a social epoch. The epoch of small operation and small countries is at an end. The new epoch of Continental operations is about to be born.

The march of events decrees that America must face the greatest issue of all time.

— SECTION STAMP —